

Bookmark this page or copy and paste URL to Email message

James E. McDonald papers, (1904-1997)

MS 412



Collection Summary

Creator:	McDonald, James E., 1920-1971
Collection Name:	James E. McDonald papers,
Inclusive Dates:	1904-1997
Physical Description:	66 linear feet
Abstract:	Papers, 1904-1997 (bulk 1958-1971). Mostly correspondence, cases, reports, interviews, and printed materials relating to James E. McDonald's investigations, 1958 to 1971, into unidentified flying objects and similar sightings.
Collection Number:	MS 412
Repository:	University of Arizona Libraries, Special Collections University of Arizona PO Box 210055 Tucson, AZ 85721-0055 Phone: 520-621-6423 Fax: 520-621-9733 URL: http://speccoll.library.arizona.edu/

Biographical Note

Born in 1920 in Duluth, Minnesota, James E. McDonald was educated at the University of Omaha (B.A. Chemistry, 1942), Massachusetts Institute of Technology (M.S. Meteorology, 1945), and Iowa State College (Ph.D. Physics, 1951). He served in the United States Navy from 1942 to 1945, and, for the following years taught or researched at Naval Aerology School, Iowa State College, and University of Chicago. He married Betsy Hunt in 1945, and they had six children.

He was appointed Associate Director at the University of Arizona's Institute of Atmospheric Physics from 1954 until 1956, and was a professor in that department from 1956 until his death in 1971. His areas of research included cloud physics, weather modification, and micrometeorology. Internationally known, he was a member of the National Academy of Sciences, American Meteorological Society, American Geophysical Union, and other national and international societies.

Relentless in his pursuit of knowledge and understanding, Mr. McDonald was an inspiring lecturer and continuously active in university affairs.

He was the author of *Physics of Cloud Modification*, in the fifth volume of *Advances in Geophysics*, and served as contributing editor to *The Glossary of Meteorology*, and contributed many articles to his field of study. His scientific interests also led him to contribute writings and testimony to contemporary issues of his time such as the supersonic transport debates, placement of Titan II missiles around the Tucson basin, and scientific dismissal of unidentified flying objects. His hypothesis that UFOs were extraterrestrial instruments on information gathering missions, and his beliefs that current scientific reports, such as the Condon Report, were superficially done, led him to investigate sightings and combat governmental impediments into his research topics.

Scope and Content Note

Papers, 1904-1997 (bulk 1958-1971). Mostly correspondence, cases, reports, interviews, and printed materials relating to James E. McDonald's investigations, 1958 to 1971, into unidentified flying objects and similar sightings, and governmental investigations, responses and reports, including the United States Air Force's Project Blue Book, and Edward U. Condon's 1969 report, *A Scientific Study of Unidentified Flying Objects*, relating to these phenomenon. Correspondence, 1958-1971, is between McDonald and various government and military officials, other scientific and professional UFO researchers. Case files, 1945-1970, include investigations, mostly in the United States, Canada, Australia, and New Zealand, on sightings by military pilots, tower control officers, law enforcement officers, scientists and citizens.

Contains photocopies of approximately 580 Project Blue Book sighting reports, mostly by pilots, and some with airborne and ground radar verification. Also includes four handwritten journals, 1958-1971, describing UFO investigative activity; papers and talks, 1966-1977, given before conferences, symposia, and groups; research materials, including his 1967 trip to Australia and New Zealand; a referenced outline of an unpublished book; over 80 audio-tapes of interviews, talks, and conversations on UFO topics; photographic materials on various subjects; and supplemental materials.

Materials in Box 30A are restricted.

Organization

This collection is organized into two subgroups. Subgroup one has seven series. Subgroup two has one series.

Subgroup I: UFO Research Files 1904-1971

Series I: General Files, A-Z, 1945-1971

Series II: Project Blue Book Radar-visual Files and Reports, 1947-1968

Series III: Research Files, 1904-1969

Series IV: Publications on Project Grudge, Blue Book, Condon, Others, 1951-1969

Series V: Photographic Materials,

Series VI: Audio-tapes: Interviews of Witnesses by JEM, 1954-1967

Series VII: Supplemental Materials, 1960-1971

Subgroup II: General Research Files 1953-1997

Series I: Research Files, 1953-1997

Restrictions

Restrictions

Materials in Box 30A are restricted.

Copyright

It is the responsibility of the user to obtain permission to publish from the owner of the copyright (the institution, the creator of the record, the author or his/her transferees, heirs, legates, or literary executors). The user agrees to indemnify and hold harmless the Arizona Board of Regents for the University of Arizona, its officers, employees, and agents from and against all claims made by any person asserting that he or she is an owner of copyright.

Access Terms

Personal Name(s)

Condon, Edward Uhler, 1902-1974
McDonald, James E., 1920-

Corporate Name(s)

National Investigations Committee on Aerial Phenomena
Project Blue Book (U.S.)
United States. -- Air Technical Intelligence Center

Subject(s)

Unidentified flying objects -- Case studies
Unidentified flying objects -- Government policy -- United States
Unidentified flying objects -- History
Unidentified flying objects -- Sightings and encounters

Genre Form(s)

Correspondence
Photographs

Administrative Information

Credit Line

James E. McDonald papers (MS 412). Special Collections, University of Arizona Libraries.

Container List

Subgroup I: UFO Research Files, 1904-1971

Series I: General Files, A-Z, 1945-1971

box

- | | |
|---|---|
| 1 | American Association for the Advancement of Science. Arizona Section. , 4/29/67 |
| 1 | AAAS: , 2/69 |
| 1 | AAAS: Summary of Presentations (1 of 2). , 12/69 |

1 AAAS: Miscellaneous items.
1 ABC-TV. , 1/6/69
1 Accidents: A/C, Cars.
1 Adams, Don: Edgemont, NM, close-arm fire case. , 4/28/67
1 Adamski, George.
1 American Institute of Aeronautics and Astronautics (AIAA): Cape Kennedy, FL. , 12/68
1 AIAA: Chicago. , 9/68
1 AIAA: Huntsville, Alabama. , 5/68
1 AIAA: Los Angeles Area. , 3/68
1 AIAA: Los Angeles. , 5/6/69
1 AIAA: Mansfield State College, PA. , 4/69
1 AIAA: New York City. , 1/70
1 AIAA: Oklahoma City. , 11/68
1 AIAA: Omaha, Nebraska. , 11/68
1 AIAA: Phoenix, AZ. , 10/68
1 AIAA: Physics Colloquium, Ames, Iowa. , 4/69
1 AIAA: Pt. Mugu, CA. , 2/18/69
1 AIAA: Sacramento, CA. , 5/69
1 AIAA: Salt Lake City. , 3/69
1 AIAA: San Antonio, TX. , 2/69
1 AIAA: San Diego, CA. , 3/69
1 AIAA: Seattle, WA. , 8/69
1 AIAA: Subcommittee and General.
1 AIAA: Tucson : Potter Correspondence. , 7/69
1 AIAA: Tulsa, Oklahoma . , 5/69
1 AIAA: Vandenberg AFB, CA. , 4/69
1 Air Force Office of Scientific Research (AFOSR).
1 Air Force Policy: Witnesses, Reports.
1 Airship Cases Aldrich, Jan: Correspondence. , 1967
1 Allende Letters: Carlos Miguel: aka Carl Allen.
1 Amarillo, TX. , 3/68
1 American Express: Dead file.
1 American Meteorological Society (AMS) Banquet: Chicago. , 5/68
1 AMS-Air Weather Service 9/17/70: Greater St. Louis area.
1 AMS: Miami. , 11/68
1 AMS: DCA Symposium Meteorological observations & instruments.
1 Anderson, John A.: Savannah River AEC. , 1952
1 Anderson, Juanita: Sacramento, CA. , 1/1/69
1 Angel Hair.
1 Ann Arbor, MI: Grenier Kartlick. , 3/25/66
1 Animal Reaction Cases Appleton, Mrs. Frank: Elgin, AZ. , 12/4/69
1 Aerial Phenomena Research Organization (APRO).
1 Arizona Cases.
1 Arizona Medical School Colloquium. , 1/69

- 1 Arnold, Kenneth . , 1947
- 1 Artesia, NM. , 1/16/51
- 1 Ashburn, PA. , 3/10/67
- 1 American Society of Newspaper Editors (ASNE). , 5/67
- 1 Assurances: Air Force & Government.
- 1 Astronomical Sky Surveys.
- 1 Astronauts: Official Documents.
- 1 Australia: Auckland: Brunt, A. J.
- 1 Australia: Clips.
- 1 Australia: Haylock, Dan: Paynesville, Victoria.
- 1 Australia: Nowra Naval Air Station. , 1954
- 1 Australian Correspondence. , 1967
- 1 Australian Flying Saucer Magazine.
- 1 Australian Miscellaneous Sightings: Slides, Sullivan, Westall school sightings.
- 1 Australian Miscellany.
- 1 Australian photos, JEM: Radio Station 2 GB.
- 1 Australian photos, Balwyn and Coyle cases.
- 1 Australian Sightings: Paul Norman.
- 1 Australian Trip Materials: Sighting catalog cards.
- 1 Australian Tully "nests" (photo).
- 1 Australian UFO Bulletin: Victorian UFO Research Society.
- 1 Aviation Week & Space Technology: early Klass, Phillip correspondence.
- box
- 2 Bacon, Terry: Photos case (multiple), Catalina Island See also Photographs.
- 2 Baker, R. M. L.. , 1968
- 2 Ball Lightning.
- 2 Baseball studies, James E. McDonald.
- 2 Baytown, TX. , 7/18/66
- 2 BBC: Philip Daly. , 1967
- 2 Beallsville, Ohio: Greg Wells "burn case." , 3/19/68
- 2 Beatty, James C.: Ground Observer Corps (GOC). , 9/54
- 2 Beeps: San Jose, CA area: Los Gatos.
- 2 Beeps: Washington State: McClelland, Betty.
- 2 Bellefontaine, Ohio 8/1/52: Radar/Aircraft/Visual.
- 2 Benedek, Leslie: Perth, Australia. , 1/17/67
- 2 Benson, N. E.: Wallingford, Connecticut. , 5/28/67
- 2 Benton, T. Bruce: Spring 1952: USAF radar case.
- 2 Berkner, Lloyd & Johnson, S. W.: Southwest Center for Advanced Studies visit. , 4/15/67
- 2 Beverly, Massachusetts Case. , 3/22/66
- 2 Bibliographical Lists of Published JEM Scientific Papers.
- 2 Bigg, E. K.: Australia: Correspondence. , 1968
- 2 Bloecher, Ted. , 1966
- 2 Bloecher, Ted: (1 of 3). , 1967
- 2 Bloecher, Ted. , 1968

- 2 Bloecher, Ted. , 1969
- 2 Bloecher, Ted: . , 1970-1971
- 2 Blue Book. , 1966
- 2 Blue Book. , 1967-1968
- 2 Blue Book: Grudge Reports Preface. , 1968
- 2 Blue Book: Re-evaluations.
- 2 Blue Book: Termination. Book Authoring. , 1969
- 2 Booth, Lloyd C.: Conway, SC. , 1/29/53
- 2 Bradford, IL. , 3/18/50
- 2 Branch, David: NICAP Affilate, Los Angeles, CA.
- 2 Bresler, Dr. Jack: Car-shaking case: Displacement cases.
- 2 Brew, Charlie: 2/15/63.
- 2 Bridge, William: San Diego, CA.
- 2 British Overseas Airways Corp. (BOAC). , 6/29/54
- 2 Brown, Helen (Auto case). , 1967
- 2 Brown, Capt. Jack: Mt. Shasta, CA. , 7/66
- 2 Browning, Dr. Iben. , 3/22/69
- 2 Browning, Rev. Lionel. , 12/4/60
- 2 Bruns, Edward: Herman, Minnesota. , 12/20/65
- 2 Bryan, Kenneth: US Weather Bureau. , 3/8/67
- 2 Burgess, Howard F.: Sandia Corp.
- 2 Burns: Irradiation: Heat. , 1/96
- 2 Burns, Gov. Haydon: Ocala, FL. , 4/25/66
- 2 Burns, Horace: Stanton, VA. , 12/21/62
- 2 Burro Club Civil Aeronautics Administration (CAA): Terra Haute, Indiana. , 11/9/51
- 2 Cale, Clifford J.: Canadian National. , 3/66
- 2 Campeadore, Michael. , 5/6/67
- 2 Camp Lejeune, North Carolina. , 4/28/67
- 2 Canada Canadian Pacific Airways, Peru.
- 2 Canadian Symposium: U. of Toronto, McGill Univ.
- 2 Burns, Gov. Haydon: Ocala, FL. , 4/25/66
- 2 Burns, Horace: Stanton, VA. , 12/21/62
- 2 Burro Club Civil Aeronautics Administration (CAA): Terra Haute, Indiana. , 11/9/51
- 2 Cale, Clifford J.: Canadian National. , 3/66
- 2 Campeadore, Michael. , 5/6/67
- 2 Camp Lejeune, North Carolina. , 4/28/67
- 2 Canada Canadian Pacific Airways, Peru.
- 2 Canadian Symposium: U. of Toronto, McGill Univ.
- 2 Canal Zone 11/25/52 (Declassified BB case, Condon Report).
- 2 Canberry Airport. , 7/15/65
- 2 Civil Air Patrol Conference.
- 2 Carr, Donald R., San Diego. , 5/13/52
- 2 Carstoiu, John: International Consultant Scientist Corp.
- 2 Carswell AFB, TX 2/13/53.

- 2 Cartoons.
- 2 Cathie, Capt. Bruce L.
- 2 CBS: "CBS Reports: UFO, Friend, Foe or Fantasy," Transcript.
- 2 Cerny, Paul C.: Bay Area.
- 2 Charleston, West VA: Braniff Airlines pilot. , 5/4/66
- 2 Chay, Donald S.: United Airlines pilot . , 6/24/?5
- 2 Cherry Creek, NY . , 8/65
- 2 Childerhose, Robert J. , 8/27/56
- 2 Chiles-Whitted sighting. , 9/24/48
- box
- 3 China Lake, CA. , 1/18/66
- 3 China Lake, CA: Bickel, Walt: Sightings , time-lapse case.
- 3 China Lake: Research Society of America Speech. , 5/27/69
- 3 China Lake: McArtor, Marie.
- 3 Clapp, Carol: Ravenna, Ohio. , 1967
- 3 Clarke, Arthur C.
- 3 Cloud Holes: Pictures.
- 3 Cloud Seeding: "Increasing Rain Artificially," JEM. , 9/17/56
- 3 Clouds: UFO Coarsegold, surrounding area: E. E. (Bud) Miller, Dan Wallis.
- 3 Coffman, Hubert: Exeter, CA. , 1/10/68
- 3 Collins, Mrs. D. J.: Lennox, MA.
- 3 Condon Committee: Clippings.
- 3 Condon Committee: Colorado Springs. , 5/13/67
- 3 Condon Committee: Condon, JEM correspondence.
- 3 Condon Committee: Correspondence, Levine, Norman.
- 3 Condon Committee: Correspondence Low, JEM.
- 3 Condon Committee: Correspondence Low, miscellaneous.
- 3 Condon Committee: Extension proposed.
- 3 Condon Committee: Home file.
- 3 Condon Committee: Library project file.
- 3 Condon Committee: Memo: Robert Low.
- 3 Condon Committee: Miscellaneous Materials.
- 3 Condon Committee: 100 Best List.
- 3 Condon Committee: Original: Early proposals.
- 3 Condon Committee: Referrals to JEM.
- 3 Condon Committee: Saunders, David: Correspondence.
- 3 Condon, Dr. E. U.: Correspondence with J. E. McDonald.
- 3 Condon, Dr. E. U.: Miscellaneous & Corres.
- 3 Condon, Dr. E. U.: UFOs I Have Loved and Lost.
- 3 Condon Report: Basic Items: Cases, NAS, etc.
- 3 Condon Report: Cartoons, correspondence, etc.
- 3 Condon Report: R-B47#3 Louisiana to Texas. , 7/17/57
- 3 Condon Report: Case #3 Haneda AFB, Japan. , 8/5/52
- 3 Condon Report: Case #7 Provo, Utah.

- 3 Condon Report: Case #35 Vandenberg AFB. , 10/6/6
- 3 Condon Report also Vandenberg AFB Trip. , 3/16/69
- 3 Condon Report: Case #41 Charleston, WVA. , 12/2/67
- 3 Condon Report: Case #49 : Tremonton, UT Newhouse film: (Interview Tape #60). , 7/2/52
- 3 Condon Report: Case #54 Gulfstream. , 3/11/66
- 3 Condon Report: Case #55 , Farmington, NM: Photo. , 4/22/65
- 3 Condon Report: p. 141: Kirtland AFB: Correspondence, photos.
- 3 Condon Report: pp. 145-48: Hess, Seymour. , 5/20/50
- 3 Condon Report: p. 14 McChord AFB: Seattle, . , 10/2/59
- 3 Condon Report: Case: Springfield, MA: Gasslein: See JEM article in file.
- 3 Condon Report: Case: Kincheloe AFB (also see Kincheloe); Newcastle, PA; Edwards. AFB; Cape Ann; Minot AFB.
- 3 Condon Report: Case: Ward, Madeline, 53: Hampton Bay, Long Island, NY.
- 3 Condon Report: Clippings & Miscellaneous. , Jan-Dec 1969
- 3 Condon Report: Correspondence on cases, CU library archives, etc.
- 3 Condon Report: Criticisms (Also see Carl Sagan file).
- 3 Condon Report: Criticisms by JEM.
- 3 Condon Report: Critique: NICAP.
- 3 Condon Report: Finland AFS, MN 9/5-6-/66.
- 3 Condon Report: JEM Letters re: Science article.
- 3 Condon Report: Levine, Norman E.
- 3 Condon Report: Nash / Fortenberry classic case: See "Nash."
- 3 Condon Report: National Academy of Sciences assessment.
- 3 Condon Report: NAS Panel Review. , 1/8/69
- 3 Condon Report: Paste-ups.
- 3 Condon Report: Project Grudge: Important cases.
- 3 Condon Report: Review in Scientific American v. 220, no. 4, April 1, 1969. , 1963
- 3 Condon Report: Stripped copies of paperback edition.
- 3 Condon Report: Thayer, Gordon.
- box
- 4 Congressional Hearing, UFO: Comm. On Science & Astron: JEM statement. , 7/29/68
- 4 Congressional Record: Proxmire, William. , 1/15/71
- 4 Congressional UFO Investigations. , 1968
- 4 Conte, Silvio O. , April 1971
- 4 Contson, Frank H.: Gatesburg, IL. , 3/6/67
- 4 Continental Divide: Radar-Visual case. , 1/26/53
- 4 Controversies & Unorthodoxies, Past & Present.
- 4 Cooney, Stuart: Pacifica Radio. , 1968
- 4 Cooper, Earl: Muroc AFB 7/8/67 (See closed tape #28).
- 4 Cooper, Gordon: Astronaut sighting. , 5/16/63
- 4 Corning, CA. , 7/4/67
- 4 Correspondence: Miscellaneous.
- 4 Correspondence: Miscellaneous. , 1966

- 4 Correspondence: Miscellaneous. , 1967
- 4 Correspondence: Miscellaneous. , 1968
- 4 Correspondence: Miscellaneous. , 1969
- 4 Correspondence: Miscellaneous. , 1970
- 4 Correspondence: Researchers from other countries.
- 4 Coverup vs. foul-up.
- 4 Coyle, John: Photos. , 3/5/67
- 4 Cozen, Charles: Burn case.
- 4 Crimmins, A. J., Jr.: Hampton, VA. , 1/27/65
- 4 Criticisms of Project Blue Book. , 1967
- 4 Crooks, James W., Jr., San Diego.
- 4 Crowder, C. N., South Hill, VA. , 4/21/67
- 4 Cruikshank, D. P.: Tucson: Candle balloon photos. , 11/26/69
- 4 Committee on Science and Astronautics. , 7/29/68
- 4 Committee for Research on UFOs.
- 4 Custer, Washington. , 1/12/65
- 4 Dailey, Norman H.: Tucson, AZ.
- 4 Damon, Texas case: 9/3/65: McCoy, B. E. , and Goode, Bob.
- 4 Daubert, Louis: Norwich, NY 7/27/64.
- 4 Daubner, Roland H.: Gills Rock, Wisconsin. , 9/13/59
- 4 Davidson, Dr. Leon.
- 4 Davis, Mrs. E. L.: Kilgore, TX.
- 4 Davis, Isabel L. (Some re. Ward case).
- 4 Deception Island. , 7/65
- 4 DeMaine, R. E. L.: Bryn Athyn, PA: Mar. or Apr. 1945.
- 4 Demler, John H.: Jonestown, PA. , 4/5/67
- 4 Detroit F-94. , 3/53
- 4 Disappearances, Aircraft.
- 4 Distribution Lists.
- 4 Dittmar, Mrs. George W.: Marysville, Ohio. , 1/5
- 4 Drake, Frank.
- 4 Druffel, Ann: Correspondence, Temple City, CA photoLACKING. , 1996
- 4 Druffel, Ann: Yorba Linda report, photos.
- 4 Dunbar, W. VA: Tad Jones. , 1/67
- 4 Dupont Research Society Speech.
- 4 Earley, George W.: Bloomfield, Connecticut.
- 4 Early sightings: Investigated by JEM. , 1966-1969
- 4 Earthquake lights.
- 4 Earthquake phenomena.
- 4 Easter, Charles F.: Tucson: Photos. , 10/9/67
- 4 Edison Foundation talk. , 5/69
- 4 Edwards AFB: , 5/3/57
- 4 Edwards AFB. , 7/30/67
- 4 Electromagnetic cases.

- 4 Electromagnetic effects.
- 4 Electronic warfare.
- 4 Elmwood Park, IL. , 11/4/57
- 4 Embajada de Chile. , 12/3/68
- 4 England: Flying Saucer Review (FSR, an UFO journal).
- 4 England: non-FSR.
- 4 Epperson, Idabel: LANS-NICAP Correspondence. , 1966-1970
- 4 Epperson, Idabel: Correspondence re missing briefcase.
- 4 Evans McIntosh case. , 2/17/58
- 4 Executive Club: Phoenix. , 3/68
- 4 Exeter, NH. , 9/3/65
- box
- 5 Federal Aviation Administration (FAA): Personnel Inquiries.
- 5 Fahrney, Admiral Delmar S.
- 5 Farmington, NM. , 3/17/50
- 5 Fatima.
- 5 Felty, Johnny.
- 5 File Index by JEM.
- 5 Fitzgerald case: Sheffield Lake, Ohio. , 9/2/58
- 5 Flares.
- 5 Flickinger: Minot, North Dakota. , 8/2/67
- 5 Florio, Andy: (Near Benson, AZ) Photo. , 3/30/55
- 5 Foo-fighter mystery.
- 5 Ford, Gerald A.
- 5 Congressman Ford, Henry II: sighting. , 4/16/68
- 5 Ford, Ruth E.: Lubbock, TX. , 2/6/67
- 5 Foreign Miscellany.
- 5 Fort Belvoir case: Australian "ring / cloud" photos.
- 5 Fort Belvoir Photos: Ring / cloud photo case. , Sept. 1957
- 5 Forteana.
- 5 Fort Monmouth. , 9/10-11/51, 2/23/65
- 5 Fournet, Dewey: JEM re. NICAP. , 1970
- 5 Fowler, Ray: Correspondence re. "coverup."
- 5 Fowler, Raymond E. (Massachusetts NICAP).
- 5 Fredrickson, Stan S.: Burley, Idaho. , 10/16/67
- 5 Freedom of Information Law: Witness names.
- 5 French UFO Groups, etc.
- 5 Friday Harbor. , 6/13-14/7
- 5 Friedman, Stanton (Westinghouse, NICAP).
- 5 Fringe Material.
- 5 Flying Saucer Review: Beyond Condon articles.
- 5 Fuller, John.
- 5 Garland, General William M.
- 5 Ghost Rockets. , 1946

- 5 Gilham, Rene: Merom, Indiana. , 11/6/57
5 Gill, Rev. William B: Papua, New Guinea sighting. , 6/26/57
5 Goddard, John M.: Grand Canyon, AZ. , 4/16/54
5 Goff, Theodore L.: Angels' Hair: Chadron, Nebraska. , 11/8/6
5 Goldsberry, Jack. , 1959
5 Goldwater, Senator Barry.
5 Goodland, Kansas. , 3/8-9/67
5 Goose AFB Cases.
5 Goshen, Indiana: Manning-Adickes case. , 4/27/50
5 Granada TV: New York. , 1967
5 Gravity Research.
5 Green Fireballs and Meteor "UFOs."
5 Greenwell, Richard.
5 Groups: Flying Saucer Investigation Comm, Akron OH: A. E. Candusso, Larry Moyers.
5 Groups: Goodyear UFO Society.
5 Groups: Institute of Policy Studies: Richard J. Barnet.
5 Groups: Ohio: Cleveland Ufology Project (CUPO).
5 Groups: Miscellaneous U. S. UFO groups.
5 Groups: Queensland, Australia: QFSRB: Brisbane.
5 Groups: Space Optics: Bloomer, John H.
5 Groups: Victorian FSRS: VUFORS (Australian).
5 Groups: UFORI: Stan Friedman.
5 Guam: UFO-Radar case. , 1966
5 Gulfport, Mississippi: S. T. Mellen. , 12/3/54
5 Guseman Gase: St. George, Delaware. , 2/9/67
5 Guy, D. A.: Springfield, IL. , 2/3/45
5 Gwodz, Capt. Joseph: SS Nantucket. , 10/7/58
5 Hall, Richard H.
box
6 Hall, Richard H.: Correspondence. , 1968-1971
6 Hall, Richard H.: Fund.
6 Hang, Edward J.: Yosemite, CA. , 8/15/64
6 Harris, Waldo J.: Salt Lake City. , 11/2/61
6 Harrisburg, PA: George B. Cook. , 6/66
6 Hartmann, William K. , 1969
6 Havasu AZ: Slater, H. L.. , 3/17/69
6 Hawk, Carl: Sandia case. , 4/23/52
6 Hawks, Ray: Boulder, Colorado. , 9/11/62
6 Henderson, Gary: Earth/Space Science Laboratory.
6 Heflin, Rex : Photos. , 1965-1968
6 Hennessey, Julian: English Researcher: Correspondence.
6 Hewes, Hayden: Interplanetary Intelligence Report.
6 Hill, Betty and Barney: Psychiatrist's statement.
6 Hill, Paul R.: Hampton, VA. , 7/16/52

6 Hill, Colonel Robert G.: Anaheim, CA. , 11/6/61
6 Hillsboro, Kansas: Hoaxer fabrication. , 3/22/67
6 Hillsdale, Michigan. , 3/21/66
6 Hoaxes and Fabrications Holloman AFB, NM. , 4/5/48
6 Holloman AFB, NM. , 4/27/50
6 Hollywood Sighting. , 2/5-6/60
6 Hoover, Frederick J.: correspondence. , 1970
6 Hull, Capt. William J.: Mobile, Alabama. , 11/14/56
6 Hunt, Captain W. R. , 5/22/51
6 Hynek, J. Allen: Articles, reviews, correspondence, memos from MAFB / BB case file,
6 Playboy article, sequels, JAH statements, clippings.
6 Hypnosis and Relata.
6 Identifications: Good examples.
6 International Get Acquainted Program: Europe: International UFO Bureau.
6 Interstellar Travel : Paul R. Hill (unpublished article).
6 Institute for Policy Studies.
6 Ithaca, NY: Mrs. Rita Malley. , 12/12/67
6 Jacksonville, Oregon: Vogel.
6 JANAP 146: AFR 200-2: AFR 80-17: Government silencing.
6 Jannereth, Kenneth D.: Houghton Lake, Michigan. , 7/16/64
6 Japan: Fukuoka. , 11/15/48
6 Japanese UFO materials (in Japanese).
6 Johnson, A. W.: Voice of America (VOA).
6 Johnson, Dave: Boise, Idaho.
6 Jones, Conway: Newton, Georgia. , 11/22/68
6 Joplin, Missouri : Photos. , 1/13/67
6 Journal, Personal: JEM: 1st: Early cases. , 2/16/58-6/29/62
6 Journal, Personal: JEM: 2nd, (35 pp.). , 4/66-6/24/67
6 Journal, Personal: JEM: 3rd (Australian trip). , 6/21-7/8/67
6 Journal, Personal: JEM: 4th, (49 pp.). , 4/28/68-3/17/71
6 Junita, PA. , 8/27/56
6 Kaliszewski, J. J. , 10/11/51
6 Kalnicki, Mrs. Jean: Dorchester, Mass: Photos. , 4/23/66
6 Kassander, A. Richard: Institute of Atmospheric Physics.
6 Keel, John Kenney, David A.: Encampment, WY. , 7/6/47
6 Kerstetter, Forrest J.: West Cameron, PA. , 2/19/67
6 Keyhoe, Major Donald E.
6 Kibel, James J.
6 Killian Case. , 2/24/59
6 Kincheloe AFB: Kansas City, KS. , 9/11-12/61
6 Kincheloe AFB: Klass critique King, Mrs. A. M.: Nairobi, Kenya.
6 King, John T.: Bangor, Maine. , 3/23/66
6 Kinlock, Elizabeth Lake Victoria Spring. , 1954

box

7 Klass, Philip J.: NICAP Report, ONR Controversy (2 folders).
7 Korean Cases.
7 Kratovil, Capt. C. J. , 6/1/54
7 Krebs, James A.: Paxinos, PA. , 1/18/67
7 Kuiper, Gerard P.: University of Arizona Lunar & Planetary Lab.
7 Kuntz, Dr. Albert B.: Houston, TX. , 1/21/67
7 Lakenheath-Benyesyrted Sightings. , 8/12-13/56
7 La Madera, NM: Hynek's lack of investigation. , 4/26/64
7 Lapp, Ralph.
7 Larson, June: Researcher, Washington State.
7 Laub Engineering.
7 Lazer: Physiological Damage: Space Research.
7 Leary, Thomas P.: Omaha, Nebraska.
7 Leawood, Kansas: Nicholl, Tom H. 7/3/67.
7 Leick, Mr. H.. , 11/22/66
7 Legenhausen, Lee: Blair, Nebraska: Photo: Frank Edwards. , 1967
7 Levelland, TX Cases: Photo (map): Slide negatives.
7 Library of Congress: "Facts about UFOs". , 5/5/66
7 Life International: Whipple, A. B. C.
7 Lightfoot, David: Amarillo TX. , 4/8/50
7 Light Paralysis: Light Flash Response.
7 Little Rock, Arkansas: Captains Anderson and Adams. , 3/18/50
7 Loburak, Carol Ann: Lansdale, PA. , 11/58
7 Loch Raven Dam. , 11/26/58
7 London Observer: (CIA, Robertson Report involvement).
7 Longview, Washington: Cdr. M. B. Taylor. , 7/3/49
7 Lore-Denault.
7 Lore, Gordon I. R. Jr.: NICAP.
7 Los Alamos Scientific Laboratory Lubbock.
7 Lights: W. L. Ducker.
7 Lundahl, Arthur C.: Bethesda, MD.
7 McClelland, Clark: Cape Kennedy NICAP.
7 McDonald, Edward N.: LeRoy, Ohio.
7 McDonald, James E.: Address Lists.
7 McDonald, James E.: Bibliography: Valerie Vaughan.
7 McDonald, James E.: Correspondence after JEM's death.
7 McDonald, James E.: Corres. and itineraries. , 10/1-12/31/69
7 McDonald, James E.: Corres. and itineraries. , 1/1-3/31/70
7 McDonald, James E.: Corres. and itineraries. , 8/1-12/31/70
7 McDonald, James E.: Corres. and itineraries. , 4/1-7/31/70
7 McDonald, James E.: Corres. and Itineraries. , 9/67-9/70
7 McDonald, James E.: Hypothesis: Extraterrial.
7 McDonald, James E.: Notes.
7 McDonald, James E.: Press. , 1966-70

7 McDonald, James E.: Press: WNEW-TV Panel on the Hill case.
7 McDonald, James E.: Talk: Arizona Academy. , 1/8/68
7 McDonald, James E.: Talk: IEEE Santa Monica, CA. , 6/9/70
7 McDonald, James E.: Las Vegas, NV. , 2/70
7 McDonald, James E.: Talk: Space Science Lecture: NC. , 2/70
7 McDonald, James E.: Talks. , 1966-67
7 McDonald, James E.: Talks. , 1968-69
7 McDonald, James E.: Talks Summary List. , 11/5/66-5/28/69
7 McDonald, James E.: Trip. , 10/23/67
7 McDonald, James E.: Trip, Westinghouse TV Series.

box

8 McDonald, James E.: UFO publications.
8 Magerko, Parma OH. , 11/16/56
8 Magor, John: Editor, Canadian UFO Report.
8 Magnetic UFO Detectors.
8 Malone, Thomas F.
8 Maney, Prof. Charles A.
8 Manhattan Beach, CA. , 7/27/52
8 Mantell, Captain: Classic case.
8 Marrow: Flemington, NJ.
8 Martin, Mrs. John S. , 3/6/57
8 Mass Displacement Cases: dv/dt.
8 Maxwell AFB I.
8 Maxwell AFB II.
8 Maxwell AFB Case Lists.
8 Meagher, Silvia: Index to. The UFO Evidence.
8 Menzel, Donald.
8 Menzel, Donald: Haneda, Japan "explanation."
8 Merced, CA.: Lt. Akins,. , ca. 1956
8 Meteorologists' Observations.
8 Meteors re. UFO Problems.
8 Methuen, MA. , 1/20/67
8 Michalak, Steve: Winnipeg. , 5/20/67
8 Michel, Aime: French researcher: Correspondence.
8 Middle East: Israel, etc.
8 Midwest: Oklahoma, etc. , August 1965
8 Miley's Eleven (11) Radar Cases: Henry A. Miley.
8 Milford, Ohio. , 2/11/67
8 Milledgeville, Georgia. , 11/20/67
8 Miller, Gene: Banning, CA. , 11/14/55
8 Minot AFB, North Dakota. , 8/24/66
8 Miscellaneous.
8 Miscellaneous Correspondence, Articles, etc.
8 Molder, Prof. Sannu: McGill University.

- 8 Monon: RR case.
- 8 Montrose, Colorado. , 5/21/50
- 8 Moore, Charlie B.: Balloon research, other cases, input, Zamora.
- 8 Moos, Stan. , 8/4/68
- 8 Morges, William S.: Massachusetts case.
- 8 Muroc AFB. , 7/8/47
- 8 Murphy, William M.: Redding, CA. , 6/10/67
- 8 Muza, Mark: Poquoson, VA. , 11/19/59
- 8 National Amateur Astronomers (NAA). , Aug 20-23, 1969
- 8 National Aeronautics and Space Administration (NASA): Astronaut sightings.
- 8 NASA. , 1966-1968
- 8 NASA: JEM proposal. , 1/16/68
- 8 List of JEM papers, talks.
- 8 Nash, Leigh: Tucson, AZ. , 5/8/68
- 8 Nash, William B., Fortenberry, William. , 7/14/52
- 8 National Academy of Sciences.
- 8 National Aeronautics and Space Council.
- 8 National Enquirer: Article, JEM letter to Donahue. , 2/17/67
- 8 National Science Foundation. , 1967
- 8 National Science Foundation: Proposal Notes. , 1970
- 8 Naval Ordnance Laboratory. , 1968
- 8 Naval Ordnance Station. , 1967
- 8 Navy: Cases and Relata (Second file).
- 8 Nazi "Flying Saucers."
- 8 Nebo, NC: Mrs. E. H. Thomason. , 3/15/57
- 8 Nemuro, Hokkaido. , 2/7/53
- 8 Nenana, Alaska. , 1/22/52
- 8 New Guinea Cases.
- 8 New Haven, West Virginia. , 4/17/67
- 8 Newman Forum: Albuquerque.
- box
- 9 Newsletters: CRIFO: Len Stringfield.
- 9 Newsletters: FSIC Bulletin: Flying Saucers Invest.
- 9 Newsletters: Kansas Newsletter, The.
- 9 Newsletters, miscellaneous.
- 9 Newton, N.H. , July 27, 1967-Sept. 8, 1967.
- 9 New York TIMES: JEM. , 1966-67
- 9 New Zealand: Correspondence, etc.
- 9 New Zealand: Fulton, Harold: Angel hair.
- 9 New Zealand: Moreland, Mrs. Frederick. , July 13, 1959
- 9 Niagara Falls. , 7/25/57
- 9 National Investigations Committee on Aerial Phenomena (NICAP) Breakup. , 1969/70
- 9 NICAP: Correspondence: Hall, Lore, Nixon, etc.
- 9 NICAP: Leonard Wolf, Congressman: Statement.

- 9 NICAP Massachusetts Committee: Fowler, Ray: Misc. reports.
- 9 NICAP Massachusetts Investigating Committee Report.
- 9 NICAP Reports: Miscellaneous (3 folders.)
- 9 NICAP: UFO Investigator. , 1966-67
- 9 NICAP: UFO Investigator. , 1968-70
- 9 NICAP: UFO Reports. , 1967
- 9 JEM interviews. , 1947
- 9 Miscellaneous Clips, General Notes and Letters. , 1950
- 9 Nogales Notes.
- 9 Norris, Peter E.
- 9 North Atlantic Case: William D. Bridge, San Diego. , 2/8/51
- 9 North Island, San Diego, CA: Broka. , 12/50
- 9 Novel, Gordon. , 11/1/69
- 9 OAS Aerospace education: Seattle. , 8/68
- 9 Occupants. , 1964-65
- 9 Occupants Relata. , '66-'68
- 9 Ochsner, Dr. Warren B. Homer, NY. , April 11, 1964
- 9 Oceanic Lake Transits Frank Draki, Carl Sagan, B. A. Nison.
- 9 Odessa, Wash. , 12/10/52
- 9 Olsen, Tom M UFO Information Retrieval Center.
- 9 Office of Naval Research (ONR) (2 folders)
- 9 Contract No. 2173. (3 folders)
- 9 ONR Funds Controversy: Klass, JEM White Papers.
- 9 ONR Funds Controversy: JEM notes, miscellaneous materials.
- 9 ONR Hughes, Jim.
- box
- 10 ONR Laufer, A. R.: Redlands, etc.
- 10 ONR London.
- 10 undated
- 10 Oracle Junction, AZ. , July 2, 1968
- 10 Outage: Articles, correspondence. , 11/9/65
- 10 Outage: Publications, etc. , 11/9/65
- 10 Outages: . , 1966-1968
- 10 Outages: Northeast. , 1965
- 10 Outages: Power. , 11/9/65
- 10 Overstreet, William: Elmer, Missouri. , 3/4/69
- 10 Oxnard, CA. , March 23, 1957
- 10 Pacific Ocean. , 7/11/59
- 10 Padrick, Sid.
- 10 Sid Page, Thornton: AAAS Symp: Article Encyclopedia Britannica.
- 10 Page, Tony: Texas.
- 10 Panel, Scientists to Study UFOs: Proposal, NAS / Coleman. , 1966
- 10 Paranormal Research: Dowsing, Vietnam.
- 10 Parapsychology.

10 Paris, TX. , 3/7/67
10 Parham, B. E.: Lavonia, Georgia. , 6/29/64
10 Patuxent R. Naval Air Station. , 12/19/64
10 People Problems.
10 Perna Photos: Frank Edwards: Lake Tiorati. Blair, Nebraska.
10 Pestalozzi, Rudy: B-36 case.
10 Petit, Ronald.
10 Petty, Paul T. , 7/24/48
10 Pfeiffer, R. James: Life Magazine shot.
10 P-51 Cases: Gorman; Vandalia; Mantell; Bellefontaine; Lake Mead.
10 Philip, Mrs. John R.: Canberra.
10 Photo Notes: James Lucci Photo and others.
10 Physics Colloquim: JEM. , 10/5/66
10 Physiological.
10 Piri Reis Maps.
10 Piute County, Utah: Ray S. Whittaker. , 8/49
10 Port Huron, Michigan. , 7/29/52
10 Portage County, Ohio: Pittsburgh NICAP Subcommittee. , 4/17/66
10 Portage County Ohio: Ravenna, Dale Spaur.
10 Powell, William C.: Radnor, PA. , 5/21/66
10 Project "Blue Book" : Miscellaneous cases and Air Force correspondence. , 1953
10 Project "Grudge". , 1951
10 Project Grudge Sightings: JEM List.
10 Project "Sign". , 1949
10 Project "Stork". , 1952
10 Project "Twinkle". , 1951
10 Propulsion: See also Space Travel.
10 Pseudo science. (2 folders)
10 Psychological Effects: Don Piccard.
10 Psychological Effects: Miscellaneous.
10 Psychological and Hallucinations.

box

11 Quotes, JEM List of.
11 Radar.
11 Radar observations: Miscellaneous.
11 Rand Corporation. , 1967-68
11 Rapid City, South Dakota.
11 Rawlins, Mrs. E. G. , 4/28/47
11 Rayburn, E. L.: Twin Falls, Idaho. , 9/7/56
11 RB-47 Case: Blue Book.
11 RB-47-Lakenheath cases: Original Radar-visuals.
11 Red Bluff, CA. , 8/13/60
11 Redlands, CA. , 2/4/68
11 Redmond, OR. , 9/25/59

11 References, UFO Materials: JEM list.
11 Reporting Possibilities.
11 Rhodes, William A.: Photos. , 7/7/47
11 Richied, Carol A.: Woodland, CA. , 2/13/67
11 Richmond, Indiana: 5/24/54: (See Saunders / Harkins p. 69).
11 Richmond, VA. , 6/24/66
11 Richmond, VA: USWB: Minoczewski. , 4/47
11 Ridicule Lid.
11 Ring-clouds: Life Magazine.
11 Robertson Report. , 1953
11 Romney, Mrs. Gordon M: Sydney, Australia. , 1904
11 Rose, Francis Leopold: Australia: sighting. , ca. 1900
11 Roush, J. Edward Congressman. , 1967-68
11 Rubicam, Bettina: Phoenix. , 1969
11 Ryan Case: AAL. , 4/8/56
11 Sagan, Carl.
11 San Carlos Lake, AZ. , 11/6/68
11 Sanderson, Ivan T.
11 Sandia Corporation: Box 5800, Albuquerque, NM 97775.
11 Sandoval, Julian: Albuquerque, NM. , 6/23/66
11 Satellites, Natural.
11 Satellite Objects.
11 Saunders, David: Corres., Orthoteny theory, Pre-pub. Drafts of UFOs? Yes!
11 Scandinavian UFO Correspondence.
11 Scenic, South Dakota: Robert E. Driscoll. , 5/27/67
11 Schirmer, Herb: Ashland, Nebraska. , 12/3/67
11 Schwartz, Dr. Berthold E.
11 Scientists and Engineers.
11 Scully, Frank: "Behind the Flying Saucers". , 1947-50
11 Scully, Orville: Casper, WY: Summer. , 1966
11 Seattle, WA: Moriarty, Mrs. E. J.. , 8/12/67
11 Seay, Henry: Fayetteville, Arkansas. , 7/4/47
11 Seago, The, Coast Guard cutter. , 11/5/57
11 Secret Technology Hypothesis.
11 Shallett, Sidney: Articles. , April 30 / May 7, 1949
11 Shaw, Allan: Hobart, Southern Tasmania: Slides.
11 Shrum and Cerny: Miscellaneous.
11 Skyballs: Fortean.
11 Skyhooks and Research Balloons.
11 Small-arms Fire.
11 Smith, E. J.. , 7/4/47
11 Smithsonian Center for Short-lived Phenomena.
11 Snippy Case: Alamosa, Colorado. , 10/67
11 Socorro, NM Landing: Fused sand invest; Moore, Charles B.; Zamora, Lonnie. , 4/24/64

11 Sonic Booms & Explosions.
11 Soukup, Joseph J.: Cleveland, Ohio. , 11/58
11 Southbridge, MA. , 9/13/67
11 Space Animal Hypothesis.
11 Space Flight. (2 folders)
11 Space Science Committee (NASA): Grant request:, rejected. , 1968
11 Space Science Grant: Expenditures Report.
11 Sperry, Capt. Willis T.: AA case. , 5/29/50
11 Spooner, Wisconsin. , 4/8/53
11 Spraggett, Allen: Canadian Broadcasting Corp.
11 Spruill, C. L.: North San Juan, CA. , : 6/1/67
11 Squyres, William V.: Pittsburgh, Kansas. , 8/25/52
11 Supersonic Transport (SST): JEM Congressional Testimony.

box

12 Staley, D. O.: Correspondence.
12 Stadvec, Ernest: Akron, Ohio. , 7/4-5/61
12 Steinmetz, Ken: National Amateurs Astronomers, Denver.
12 Stevenson, G. Bruce: Mansfield, Ohio. , 2/1/48
12 Stranges, Frank E.
12 Strauch, Art A.: St. George MN. , 10/2/65
12 Stratospheric Clouds: "ring-cloud."
12 Stringfield, Len: Correspondence.
12 Sub-sun Case.
12 Sullivan, Mrs. William.
12 Susanville, CA: Edward A. Grant. , 9/14/63
12 Swamp Gas.
12 Symposium Clippings. , 7/29/68
12 Tape Transcriptions: JEM: Witnesses, etc: Summaries, JEM.
12 Taylor, George E.: Ottsville, PA. , 9/6/67
12 Taylor, Senator Sam T.: Mt. Mestas, Colorado. , 11/25/55
12 Temple City Sightings: Druffel, LANS, NICAP. , May 1966
12 Tenoper, Don: Beatrice, Neb. , 4 August 1965
12 Testimony and Recall.
12 Theology and Philosophy.
12 Thibault, Frank T.: (Frank T. Thibault Collection).
12 Thomas, Steve: Omaha. , 11/2/68
12 Thompson, William H.: Municipal University of Omaha.
12 Tillamook, Oregon. , 3/13-14/67
12 Time travel hypothesis.
12 Tirman, Col. Robert M.: Southeast Asia. , 3/14/69
12 Tombaugh, Dr. Clyde: (Astronomer Sighting). , 8/20/54
12 Totten, Bertram A.: L.O.C.: DCA. , 3/26/50
12 Tremonton, Utah, D.C. Newhouse. , 7/2/52
12 Trinidad, Colorado. , 3/23/66

12 Trindad Isle Photos: Overall, Zan Corres. , 1/16/58
12 Trittipoe, Theresa: AA encounter: El Paso, NM. , 1/16/67
12 Tucson Area Sighting. , 4/1/58
12 Tucson Luminous Objects. , 11/7/65
12 Tully Nests.
12 Tunguska Explosion, Siberia (Also Mars' moons): Seers, Stan.
12 Twin Falls, Idaho: Photos. , 8/13/47
12 Twinkle, Project.
12 Udall, Morris K., Congressman.
12 Udvardy, Jenő: Vicksburg, Michigan. , 3/31/67
12 Uehling, Dr. Edwin: "Dr. X": University of Washington.
12 Unidentified Flying Objects (UFO): Articles: General.
12 UFO: Articles: Life , Look , Newsweek , Saturday Review. (2 folders)
12 UFO: Articles: Space & Extraterrestrial Life.
12 UFO: Articles: Time.
12 UFO: Articles, True Magazine.
12 UFO: Articles, U.S. News and World Report.
12 UFO: Bibliographies: Martin Sabel and Doubt.
12 UFO Cases: List by JEM: Evaluations.
12 UFO Clips: Australian. , 1954-1967
12 UFO Clips: Chronological. , 1950-1954

box

13 UFO Clips: Chronological. , 1955-58
13 UFO Clips: Chronological. , 1959-64
13 UFO Clips: Chronological. , 1965- June 1966
13 UFO Clips: Chronological. , 9/66-12/66
13 UFO Clips. , January 1967
13 UFO Clips: February. , 1967
13 UFO Clips: March. , 1967
13 UFO Clips. , April 1967
13 UFO Clips. , May 1967
13 UFO Clips. , June 1967
13 UFO Clips. , July 1967
13 UFO Clips. , August 1967
13 UFO Clips. , September 1967
13 UFO Clips. , October 1967
13 UFO Clips. , November - December 1967
13 UFO Clips. , January - March 1968
13 UFO Clips: Miscellaneous.
13 UFO Education Courses.
13 UFO Investigation Center (UFOIC): Australia (Photos).
13 UFOIC Newsletter: Australian.

box

14 UFO Journals: Anomaly, Ed. John A. Kee.

- 14 UFO Journals: Apro Bulletin. , May 1958 thru Nov-Dec 1965
- 14 UFO Journals: Apro Bulletin. , Nov-Dec '66 thru May-June '71
- 14 UFO Journals: Australian Flying Saucer Review.
- 14 UFO Journals: Canadian UFO Report.
- 14 UFO Journals: Saucer News, Editor-in-chief, Gray Barker.
- 14 UFO Journals: Scientific: Icarus.
- 14 UFO Journals: Scientific: Science.: William Markowitz controversy.
- 14 UFO Reports. , January-June 1968
- 14 UFO Reports. , July-September 1968
- 14 UFO Reports. , October-December 1968
- 14 UFO Reports. , 1969
- 14 UFO Reports: Clippings & Duplicates.
- 14 UFO Reports: Miscellaneous.
- 14 UFOs: Pre-1800: Hawaii; Japan; Seneca; Cicero; India vimanas.
- 14 UFO Sightings: Miscellaneous.
- 14 Uman, Martin: Westinghouse, re. Klass.
- 14 Union, Robert B.: Deer Lodge, Montana. , 2/13/68
- 14 United Aircraft Corporation & Travelers' Research Corporation. , 1968
- 14 United Nations.
- 14 University of California at Riverside: Series on Space Navigation and Space Beliefs.
- 14 University Research Society of America: File #300.
- 14 University of Washington: Hazard Lockard sightings.
- 14 U.S. Air Force: List of Unidentifieds. , 1952-1967
- 14 USS Delarof Case. , 7/45
- 14 USSR: A. A. Tikhanov; Y. A. Fomin; Fedor Y. Zigel; General Porfiri Stolyarov; Anatoly Stolyarov.
- 14 USSR: Translated by Irving Ames from "Technology and Youth."
- 14 USSR: Zigel Pleas: UFO Study, Russian.
- 14 U Thant Utica, New York: Capt. Robert W. Fox. , 6/23/55
- 14 Uzunoglu, Dr. V.. , 8/1/66
- 14 Vallee, Jacques.
- 14 Van Cleef, Mrs. Shirley C.: Tucson, AZ. , 6/61
- 14 Vandalia, Ohio. , 3/8/50
- 14 Van Winkle PAA: near San Juan, Puerto Rico. , 3/9/57
- 14 Vashon Island.
- 14 Venavle, David, Attorney: Washington, D.C.
- 14 Volunteer Flight Officers Network (VFON). , 1966-67
- 14 VFON: 1966-67: Herb E. Roth, Director VFON. , 1969-71
- 14 Vietnam. , 5/5/67
- 14 Vintner, Captain Lawrence: Sioux City, Iowa. , 1/20/51
- 14 Walter, Clara: Tucson. , 4/8/66
- 14 Walton, Dr. and Mrs. George: Rodeo, NM. , 9/25/67
- 14 Wanaque Reservoir, NJ. , 1/66
- 14 Washington National Airport. , 7/52

14 Warren, Ohio. , 7/8/68
14 Watson, Mrs. Lola: Nickel sample: Photos.
14 Weather Balloons.
14 Weather Data: U.S. Air Force. , 10/6/67
14 Webb, Walter N.: Hayden Planetarium, Boston.
14 Weber, Cdr. Robert W.: Miramar. , 1951
14 Weitzel, William B. White Sands. , 3/2/67
box
15 White Sands , 3/2/67
15 White Sands , 3/2/67
15 Whitmore, Dr. Robert A.: San Jose, CA. , 4/25/52
15 Whittier, CA: "Mexican Hat Dance" UFOs. , 8/22/57
15 Wiegner, A. A. , 9/23/54
15 Wildcat article: JEM. , 5/21/68
15 Wilson, Paul W.: Yucca Valley, CA. , 3/21/69
15 Winkel, Joseph J.: Springfield, IL. , 7/20/64
15 Wistor, Joe W.: Sandia, NOTS. , 1947-48
15 Wood, Dr. Robert M.: McDonnell-Douglas.
15 Woodruff, Dr. R. S.: Vermont. , 1/4/65
15 Wright Brothers, etc.
15 Wright, Col. Howard T.: B-25 Texas case. , 1/16/57
15 Yankee Atomic Plant: Haddam, Connecticut. , 9/13/67
15 Yarger, Doug. , 9/17/69
15 Yorba Linda Photos. , 1/24/67
15 Yuma, AZ. , 4/52, 2/4/53; 7/18/69

Series 2: Project Blue Book, 1947-1968

box
15 Hamburg, NY., June 1947:
15 Rehobuth Bomen, Delaware., June 2, 1947:
15 Weiser, Idaho. , June 12, 1947:
15 Bakersfield, California., June 14, 1947:
15 Spokane, Washington., June 21, 1947:
15 Portland, Oregon. , June 24, 1947:
15 Idaho., June 24, 1947:
15 Montgomery, Alabama., June 28, 1947:
15 Rockfield, Wisconsin., June 28, 1947:
15 30 miles NW Lake Mead, Nevada., June 28, 1947:
15 Las Cruces, New Mexico., June 29, 1947:
15 Williams AFB, Arizona., June 30, 1947:
15 S. Brooksville, ME. , July 3, 1947:
15 Mt. Jefferson, Washington., July 4, 1947:
15 Boise, Idaho., July 4, 1947:
15 Portland, Oregon., July 4, 1947:
15 Clay Center, Kansas., July 6, 1947:

15 Fairfield Suisun AFB, Calif., July 6, 1947:
15 Hickam Village, Havana., July 7, 1947:
15 Shreveport, Louisiana., July 7, 1947:
15 Muroc AFB, Calif., July 7-8, 1947:
15 Boise-Meridian, Idaho., July 9, 1947:
15 Canyon Ferry, New York., July 29, 1947:
15 Hamilton Field, California., July 29, 1947:
15 Elmendorf AFB, Anchorage, Alaska., July 11, 1947:
15 NW of Bethel, Alaska., August 4, 1947:
15 Boston, Mass., August 4, 1947:
15 Salmon Dam, Idaho., August 13, 1947:
15 Twin Falls, Idaho., August 13, 1947:
15 5 miles S. of Placerville, Calif., August 14, 1947:
15 Rapid City AFB, Weaverville, South Dakota., August 15-20, 1947:
15 Twin Falls, Idaho., August 19, 1947:
15 Holloman AFB, New Mexico., August (Late) 1947:
15 Oswego, Oregon., September 3, 1947:
15 Logan, Utah., September 8, 1947:
15 Midway Island to Oahu, Beyond Necker I., September 12, 1947:
15 Ft. Richardson, Alaska., September 17, 1947:
15 Las Vegas, Nevada., October 8/9, 1947:
15 Phoenix, Arizona., October 14, 1947:
15 Xenia, Ohio., October 20, 1947:
15 Dayton, Ohio., October 20, 1947:
15 Anderson Rd., Houston, Texas., November 2, 1947:
15 40 miles N. of Cape Blanco, Oregon., November 12, 1947:
15 Northern Arizona., Mid-December 1947:
15 30 miles W. Lovelock, Nevada., December 30, 1947:
15 Wildwood, NJ., January 10, 1948:
15 Philippine Islands., April 1, 1948:
15 Asley, Ohio., April 8, 1948:
15 Montgomery, Alabama., April 9, 1948:
15 Alton, Ill. , April 11, 1948:
15 North Atlantic 62 degrees N, 33 degrees., April 18, 1948:
15 North Atlantic., April 18, 1948:
15 Fairbanks, Alaska., April 18, 1948:
15 Greenville AFB, S.C., April 19, 1948:
15 Anacostia NAS, W. D.C., April 30, 1948:
15 Adapasari, Turkey., May 5, 1948:
15 Wake Island., May 6, 1948:
15 Memphis, Tenn., May 7, 1948:
15 Wilmington, N.C., May 31, 1948:
15 Galveston, Texas., June 1948:
15 Scott AFB, Ill., June 20, 1948:

15 Union Town, PA., June 29, 1948:
15 S. Knoxville, Tenn. , June 30, 1948:
15 Hecla, So. Dakota., June 30, 1948:
15 Dravesburg, PA., July 4, 1948:
15 McDeesport, PA., July 8, 1948:
15 Fielding Lake, Wash., July 9, 1948:
15 Van Nuys, Calif., July 21, 1948:
15 Altoona, PA. , July 24, 1948:
15 Chamblee, Georgia., July 26, 1948:
15 Indianapolis, Indiana., July 31, 1948:
15 Bedford, VA. , Summer 1948:
15 Marian, VA., July, August 1948:
15 Columbus, OH., August 2, 1948:
15 Moscow, USSR., August 3, 1948:
15 North Powder, Oregon., August 4, 1948:
15 Hamel, Minn., August 11, 1948:
15 Maplewood, OH., August 29, 1948:
15 San Simeon, Calif., September 18, 1948:
15 Turner AFB, Albany, GA., September 22, 1948:
15 Santa Fe, N.M., September 23, 1948:
15 San Pablo, Calif., September 23, 1948:
15 Neubiberg AFB, Munich, Germany., October 11, 1948:
15 South Bend, Indiana., October 13, 1948:
15 Crescent City, Calif., October 17, 1948:
15 Honolulu, Hawaii., October 19, 1948:
15 10 miles SW of Junction City, Kansas., October 24, 1948:
15 Fargo, ND., October 24, 1948:
15 Phoenix, Arizona., October 24, 1948:
15 Goose AFB, Labrador., October 27, 1948:
15 Gray's Harbor, Mich., October 30, 1948:
15 Goose Bay, Labrador., October 31, 1948:
15 Azores Isles., October 31, 1948:
15 Martha's Vineyard, Mass. , Fall, 1948:
15 10 mi. E. Vaughn, NM., November 3-4, 1948:
15 Wakkana, Japan., November 6, 1948:
15 Clark AFB, Philippines., November 12, 1948:
15 Peace River, Alberta, Canada., November 17, 1948:
15 Andrews AFB, MD., November 18, 1948:
15 Fursten-Feldbruck, Germany., November 23, 1948:
15 Washington & Oregon ., November 26, 1948:
15 Dayton, OH., December 3, 1948:
15 Fairfield-Suisun AFB, Calif. , December 3, 1948:
15 Kirtland AFB, N.M., December 6-9, 1948:
15 Chanute AFB, Ill. , December 8, 1948:

15 Pittsburgh, PA., December 9, 1948:
15 Ambridge, PA., December 17, 1948:
15 Sweden., December 30, 1948:
15 Jackson, Miss., January 1, 1949:
15 Hickam Field, Hawaii., January 4, 1949:
15 Los Alamos, NM., January 6, 1949:
15 Camp Hood, TX., March 17, 1949:
15 Camp Hood, TX., March 18, 1949:
15 Arrey, NM., April 24, 1949:
15 Tucson, AZ., April 28, 1949:
15 Ft. Bliss, TX., May 5, 1949:
15 So. Oregon., May 27, 1949:
15 Mt. Hood, Oregon., July 30, 1949:
15 Mt. Palomar, Calif., November 23, 1949:
15 2400 N. - 8520 W. Gulf of Mexico., January 12, 1950:
15 Teaticket, Mass., February 5, 1950:
15 Los Alamos, NM., February 25, 1950:
15 Vandalia, OH., March 8, 1950:
15 Selfridge AFB, Mich., March 9, 1950:
15 Little Rock, Ark. , March 22, 1950:
15 Motubu Peninsula, Okinawa., March 27, 1950:
15 Marrowbore Lake, Tenn. , March 30, 1950:
15 Kokomo, Ind. , April 1950:
15 Honshu, Japan., May 19, 1950:
15 Holloman AFB, NM., May 24, 1950:
15 Texarkana, TX. , June 27, 1950:
15 Bermuda., August 24, 1950:
15 Holloman AFB., August 30, 1950:
15 Germany. , September 8, 1950:
15 Provincetown, Mass., September 21, 1950:
15 Knoxville, Tenn. , October 12, 1950:
15 South Ruislip, England., November 10, 1950:
15 Key West, Fla., November 14-15, 1950:
15 Maxwell AFB, Alabama., November 23, 1950:
15 Knoxville, Tenn., November 29-30, 1950:
15 Oak Ridge, Tenn., December 18, 1950:
15 10 minutes NW Bulkang, Alaska., December 19, 1950:
15 Lakehurst, NJ., December 27, 1950:
15 Artesia, NM., January 16, 1951:
15 Sioux City, Iowa., January 20, 1951:
15 Oak Ridge, Tenn., January 21, 1951:
15 Westover AFB, Mass., January 24, 1951:
15 49.50 N, 50.03 W, Atlantic., February 10, 1951:
15 McClellan AFB, Calif., March 13, 1951:

15 Holloman AFB, NM., July 14, 1951 & July 9, 1951:
15 Selfridge AFB, Mich., July 30, 1951:
15 Larson AFB, Washington., August 26, 1951:
15 Matador, TX., August 31, 1951:
15 Ft. Monmouth., September 10-11, 1951:
15 Goose AFB, Labrador., September 13, 1951:
15 Michigan, Wisc., September 18, 1951:
15 Long Beach, Calif., September 23, 1951:
box
16 Kadena AFB, Okinawa., October 3, 1951:
16 Yellow Sea., October 18, 1951:
16 Battle Creek, Mich. , October 21, 1951:
16 No. Truro, Mass. , October 22, 1951:
16 Columbus, Ohio., December 22, 1951:
16 Mitchel AFB, NY., January 21, 1952:
16 Nanana, Alaska., January 22, 1952:
16 Korea., January 29, 1952:
16 Granite City, Ill. , February 13, 1952:
16 Korea., February 16, 1952:
16 No. Korea., February 24, 1952:
16 Pt. Conception, Calif. , March 24, 1952:
16 Ft. Stockton, Texas., March 26, 1952:
16 Misawa, Japan., March 29, 1952:
16 Glendale, Ariz. , April 5, 1952:
16 Duncanville, Texas., April 5, 1952:
16 Miller-Graughan AFB, Temple, Texas., April 6, 1952:
16 Shreveport La. , April 9, 1952:
16 Moriarity, N M., April 13, 1952:
16 Memphis, Tenn. , April 14, 1952:
16 Shreveport, La. , April 16, 1952:
16 Yuma, Ariz., April 17 & 18, 1952:
16 Japan., April 18, 1952:
16 Yuma, Ariz. , April 27, 1952:
16 Moriarity, NM., April 30, 1952:
16 George AFB, Calif. , May 1, 1952:
16 Atlantic Ocean., May 8, 1952:
16 George AFB, Calif. , May 9, 1952:
16 George AFB, Calif. , May 9, 1952:
16 George AFB, Calif. , May 9, 1952:
16 George AFB, Calif. , May 9, 1952:
16 Albuquerque, NM., May 10, 1952:
16 George AFB, Calif. , May 11, 1952:
16 George AFB, Calif. , May 11, 1952:
16 George AFB, Calif. , May 14, 1952:

16 George AFB, Calif. , May 20, 1952:
16 George AFB, Calif. , May 13, 1952:
16 Washington, D.C. , May 15, 1952:
16 Randolph AFB, Texas., May 25, 1952:
16 Tierra Amarilla, NM., May 25, 1952:
16 North Korea., May 26, 1952:
16 Marrakech, Morocco., June 12, 1952:
16 March AFB, Calif. , June 18, 1952:
16 Yuma, Ariz. , June 19, 1952:
16 George AB, Labrador., June 19, 1952:
16 Marxville, Tenn. , June 21, 1952:
16 Ft. Monmouth, N J., July 1, 1952:
16 Quantico, Va. , July 10, 1952:
16 Washington, D.C. , July 13, 1952:
16 Kirksville, MD., July 13, 1952:
16 Hampton Roads, Va. , July 16, 1952:
16 Washington, D.C. , July 19, 1952:
16 Washington, D.C. , July 19-20 & July 26-27, 1952:
16 Dobbins AFB, Ga. , July 21, 1952:
16 Boston, Mass. , July 22, 1952:
16 Jamestown, Rhode Island., July 23, 1952:
16 McDill AFB, Fla. , July 23, 1952:
16 Carson Sink, Nev. , July 24, 1952:
16 Kirtland AFB, NM., July 23, 1952:
16 Yakima, Wash. , March 23, 1952:
16 McGuire AFB, NJ., July 28, 1952:
16 Port Huron, Mich. , July 29, 1952:
16 Los Alamos, NM., July 29, 1952:
16 Miami, Fla. , July 29, 1952:
16 Phoenix, Ariz. , August 4, 1952:
16 Phoenix, Ariz., August 4, 1952:
16 Tokyo, Japan., September 2, 1952:
16 Guantanamo Bay, Cuba., September 24, 1952:
16 Tsu Shima, Japan., September 28, 1952:
16 Goose AFB, Labrador., September 28, 1952:
16 Ashiya, Japan., October 15, 1952:
16 Tierra Amarilla, NM., November 8, 1952:
16 Glasgow, Mont. , November 18, 1952:
16 Wichita, Kan. , November 15, 1952:
16 White Sands, NM., November 25, 1952:
16 Goose Bay, Labrador., November 26, 1952:
16 Washington, D.C. , November 30, 1952:
16 Colorado Springs, Colo. , December 4, 1952:
16 Congares AFB, South Dakota., December 4, 1952:

16 Gulf of Mexico., December 6, 1952:
16 Angoon, Alaska., December 6, 1952:
16 Pope AFB, SC. , December 10, 1952:
16 Goose AB, Labrador., December 15, 1952:
16 Honshu, Japan., December 15, 1952:
16 Camp Carson, Colo. , December 24, 1952:
16 Japan. , December 29, 1952:
16 Hokkaido Island, Japan., December 29, 1952:
16 Craig, Mont. , January 1, 1953:
16 Dallas area, Texas., January 6, 1953:
16 Misawa, Japan., January 9, 1953:
16 Sonoma, Calif. , January 10, 1953:
16 Bergstrom AFB, Texas., January 23, 1953:
16 Moody AFB. , January 28, 1953:
16 Turner AFB, Ga..
16 Finland, Minn., February (deleted), 1953:
16 Keflavik Airport, Iceland., February 3, 1953:
16 Yuma, Ariz. , February 4, 1953:
16 Rosalia, Wash. , February 6, 1953:
16 Okinawa, Japan. , February 7, 1953:
16 Misawa, Japan. , February 10, 1953:
16 Raimer, Ala. , February 16, 1953:
16 Port Austin, Mich., February 17, 1953:
16 Charleston, W. Va. , February 25, 1953:
16 Great Falls AFB, Mont. , February 27, 1953:
16 Luke AFB, Arizona. , March 3, 1953:
16 Congares AFB & Shaw AFB, S.C., March 5, 1953:
16 Sea of Japan. , March 14, 1953:
16 Ashiya AFB, Kyushu, Japan., March 8, 1953:
16 Pork Chop Hill, Korea. , March 20, 1953:
16 Pasadena, Texas. , March 23, 1953:
16 San Antonio, Texas., March 25, 1953:
16 Rabat, Morocco. , March 25, 1953:
16 Spooner, Wisc. , March 29, 1953:
16 Honshu, Japan. , March 31, 1953:
16 Sweetwater, Nev. , April 12, 1953:
16 Manchuria., April 14, 19, 21, 23, 1953:
16 Tucson, Ariz. , April 15, 1953:
16 Calumet, Mich. Lake Superior area. , April 19, 1953:
16 Goose AFB, Labrador. , May 1, 1953:
16 Goose AFB, Labrador. , May 2, 1953:
16 Goose AFB, Labrador., May 12, 1953:
16 Goose AFB, Labrador., June 11, 1953:
16 San Antonio, Texas. , June 16, 1953:

16 Iwo Jima. , June 18, 1953:
16 Iwo Jima. , June 26, 1953:
16 Tipp City, Ohio. , July 3, 1953:
16 Offutt AFB, Neb. , July 20, 1953:
16 Rapid City, So. Dakota. , August 5, 1953:
16 Port Moresby New Guinea., August 23, 1953:
16 Palmdale, Calif. , September 28, 1953:
16 Offutt AFB, Neb. , October 13, 1953:
16 Presque Isle, Maine. , October 16, 1953:
16 North Truro, Mass. , December 3, 1953:
16 Holloman AFB, NM. , December 3, 1953:
16 Mediterranean. , December 16, 1953:
16 Kelly AFB, Texas. , January 14, 1954:
16 Nouasseur, French Morocco. , March 5-7, 1954:
16 Pittsburgh, Pa., March 11-12, 1954:
16 Norfolk, England. , May 14, 1954:
16 Mobile, Ala. , June 30, 1954:
16 Bermuda., July 3, 1954:
16 Pepperell AFB, Newfoundland. , July 27, 1954:
16 Korea. , July 29, 1954:
16 Houston, Texas. , October 5, 1954:
16 Tinker AFB, Okla., October 23, 1954:
16 New Orleans, La. , November 16, 1954:
16 Spanish Morocco. , December 2, 1954:
16 Nogales, Ariz. , December 23, 1954:
16 Tokyo, Japan. , March 20, 1955:
16 Soledad & Sonoma, Calif. , March 29, 1955:
16 Dahlgren, Va. , April 28, 1955:
16 Duluth, Minn. , May 13, 1955:
16 China Lake, Calif. , July 1, 1955:
16 Newfoundland, Canada., July 5, 1955:
16 Mulberry Corners, Ohio. , July-August 1955:
16 Forland, Missouri., August 25, 1955:
16 Knoxville, Texas., October 19, 1955:
16 Minneapolis, Minn., October 20, 1955:
16 St. Louis, Missouri. , November 17, 1955:
16 Marianna, Fla.. , December 6, 1955:
16 Caddo Lake, La.. , December 13, 1955:
16 Laguna, Calif.. , December 17, 1955:
16 Wurtsmith AFB, Mich.. , January 11, 1956:
16 Wheelus AFB, Morocco., January 24, 1956:
16 Wheelus AFB, Morocco. , January 24, 1956:
16 Camp Irwin, Calif., February 2, 9, 21, 1956:
16 Kessler AFB, Miss., February 7, 1956:

16 Goose Bay, Labrador. , February 12, 1956:
16 Spokane, Wash.. , March 3, 1956:
16 A/V Sighting between Schenectady & Oswego, NY., April 8, 1956:
16 Aliquippa, Pa.. , May 8, 1956:
16 50 mi. NW of Monroe, La.. , May 22, 1956:
16 Banning, Calif.. , June 6, 1956:
16 Scattered points/So. Calif., LA to San Diego., June 29, 1956:
16 Euclid, Ohio. , July 6, 1956:
16 Westover AFB, Mass.. , July 17, 1956:
16 Dallas, Texas. , August 10-11, 1956:
16 SSW Spragueville, Maine. , August 17, 1956:
16 North Bend, Ore.. , August 20, 1956:
16 Bornholm, Denmark., August 22, 1956:
16 Essex, England. , October 9, 1956:
16 Wheelus AB, Libya., October 18, 1956:
16 Point Arena, Calif.. , November 4, 1956:
16 El Toro, Calif.. , November 11-12, 1956:
16 Itazuke, AB, Japan. , December 17, 1956:
16 Las Cruces, NM. , February 7, 1957:
16 Marrero, La.. , February 13, 1957:
16 Lincoln AFB, Neb.. , February 13, 1957:
16 Tierra Amarilla, NM. , February 13, 1957:
16 Castle AFB, Calif.. , February 27, 1957:
16 Castle AFB, Calif.. , February 27, 1957:
16 Point Mugu, Calif.. , March 22, 1957:
16 Oxnard, Calif.. , March 23, 1957:
16 Houma, La.. , May 29, 1957:
16 Detroit, Mich.. , May 30, 1957:
16 Shreveport, La., June 3, 1957:
16 McChord AFB, Wash.. , June 14, 1957:
16 Las Vegas, Nev.. , July 16, 1957:
16 Mt. Lemmon AFB, Tucson, Ariz.. , July 18, 1957:
16 Northern California., August 3, 1957:
16 Cambria AFS, Calif.. , August 22-23, 1957:
16 Cambria AFS, Calif.. , August 22-23, 1957:
16 Dry Tortugas, Fla.. , August 27, 1957:
16 Tulsa, Okla.. , September 12, 1957:
16 Mantauk, N.Y. Benton, Penn.. , September 20, 1957:
16 Mildenhall, England., October 19, 1957:
16 Wiesbaden, Ga.. , October 22, 1957:
box
17 Canadian, Texas. , November 2, 1957:
17 White Sands, NM. , November 3, 1957:
17 Oro Grande, NM. , November 4, 1957:

17 Long Beach Airport, Calif. , November 5, 1957:
17 Eglin AFB, Fla., November 5, 1957:
17 Montsville, Ohio., November 6, 1957:
17 Kagohima, Japan. , November 6, 1957:
17 Laredo AFB, Texas., November 6, 1957:
17 Whitman AFB, Missouri. , November 6, 1957:
17 Harlingen AFB, Texas., November 7, 1957:
17 Rothwesten, Germany. , November 14, 1957:
17 Houm, Alabama. , November 21, 1957:
17 Joliet, Ill. , November 23, 1957:
17 Eglin AFB, Fla., November 25, 1957:
17 West Mesa AFB, NM. , November 26, 1957:
17 Minot, No. Dakota. , November 30, 1957:
17 Guthrie, W. Va.& Parkersburg, W. Va., December 11, 1957:
17 Lake City AFS, Tenn., December 11, 1957:
17 Misawa Chitose-Hokkaido, Japan. , December 12-15, 1957:
17 Pepperrell AFB, Newfoundland., December 19, 1957:
17 Sea of Japan. , December 23, 1957:
17 SW Libya. , January 4, 1958:
17 Biggs AFB, El Paso, Texas. , January 9, 1958:
17 Bering Sea Area. , January 11, 1958:
17 Bering Sea. , January 14, 1958:
17 W. of Wake Island., February 13, 1958:
17 Glenwood, Newfoundland. , February 25, 1958:
17 Gander AFB, Newfoundland., February 25, 1958:
17 Flagstaff, Ariz. & Templehof, Germany., May 3, 1958, May 28, 1958
17 Pueblo, Colo. & Malstrom AFB, Montana., June 14, 1958, August 4, 1958:
17 Osel Island & Gulf of Finland., August 11, 1958:
17 Warren, Mich., August 17, 1958:
17 Gray AFB, Killeen, Texas. , August 30, 1958:
17 Wheelus AFB, Tripoli, Libya., September 1, 1958:
17 19.03 N, 68.56 W, Atlantic.b, September 5, 1958:
17 Miles City AFS, Ellsworth AFB, SD, 12 mi. S of Minot, ND., September 7, 1958:
17 Wheelus AFB, Libya. , September 14, 1958:
17 Sheffield Lake, Ohio. , September 21, 1958:
17 Kindley AFB, Bermuda., September 23, 1958:
17 Laredo, Texas. , October 11, 1958:
17 Troy Peak & Tonopah Airport, Nev., November 13, 1958:
17 Montauk AFB, NY., November 19, 1958:
17 Grand Bahama Island, West Indies., March 10, 1959:
17 Duluth, Finland, Minn., March 12, 1959:
17 Duluth, Minn. , March 13, 1959:
17 Duluth, Minn. , March 13, 1959:
17 Ellsworth AFB, So. Dakota. , March 14, 1959:

17 Ann Arbor, Mich.. , March 22, 1959:
17 No. Montana. , March 25, 1959:
17 Corsica, Penn.., March 26 or 27, 1959:
17 Antigo & Madison, Wisc.. , April 13, 1959:
17 Pease AFB, N.H.. , May 2, 1959:
17 Offut AFB, Nebraska. , May 13, 1959:
17 Philadelphia, Penn.. , May 14, 1959:
17 Greenbush, Kansas. , May 18, 1959:
17 8 mi. E of Rapid City, So. Dakota. , May 21, 1959:
17 Genoa, Italy. , June 3, 1959:
17 Manassas, Roanoke, Va.., June 9, 1959:
17 WSE of Meridian, Miss.. , June 16, 1959:
17 33.05 N, 134 W, Pacific. , June 18, 1959:
17 Forest Park, Ill.. , June 18, 1959:
17 Stephenson, Mich, Sault Ste. Marie., June 18, 1959:
17 Enon, Ohio. , June 18, 1959:
17 Lyons, Colo.. , June 18, 1959:
17 Eamonton, Alberta, Canada., June 18, 1959:
17 South of Macao, China., June 21, 1959:
17 South of Taegu, Korea. , June 25, 1959:
17 Dunville, Va.. , June 27, 1959:
17 Patuxent River NAS, Maryland., June 30, 1959:
17 Needles, Calif.. , July 3, 1959:
17 Bahamas., July 9, 1959:
17 North Pacific, Hawaii., July 11, 1959:
17 New Delhi, India. , July 14, 1959:
17 Irendequoit, NY. , July 25, 1958:
17 Corpus Christi, Texas. , July 28, 1959:
17 East of Florida. , July 28, 1959:
17 Washington, DC. , August 2, 1959:
17 Silver Springs, Maryland., August 3, 1959:
17 Macon and Forsyth, Ga.. , August 16, 1959:
17 80 mi East of U.S.. , August 19, 1959:
17 Charlotte Island., Canada. , August 28, 1959:
17 Haha, Okinawa. , September 5, 1959:
17 Wallingford, Ky.., September 7, 1959:
17 Camp Kinser, Okinawa. , September 10, 1959:
17 Gills Rock, Wisc.., September 13, 1959:
17 Bunker Hill AFB, Ind.. , September 13, 1959:
17 Kadena, Okinawa., September 15, 1959:
17 Lincoln, NH. , September 20, 1961:
17 Redmond, Ore.. , September 24, 1959:
17 Seattle, Wash.. , October 2, 1959:
17 Philippines. , October 4, 1959:

17 Lincoln, Nebr. , October 6, 1959:
17 Washington, Ga.. , October 12, 1959:
17 North of Langley AFB, Va.. , October 19, 1959:
17 Warsaw, NY. , October 21, 1959:
17 Loring AFB, Maine area ., October 22-23, 1959:
17 Toccoa, Ga.. , October 26, 1959:
17 Montauk AFS: Long Island, NY. , November 5, 1959:
17 Southern Victoria Island, Canada., December 18, 1959:
17 West of Albuquerque, NM. , December 23, 1959:
17 Canada, Montana, North Dakota. , May 7, 1960:
17 Pacific Ocean. , June 4, 1960:
17 Ridgecrest, Calif., September 10, 1960:
17 Ridgecrest, Calif.. , September 10, 1960:
17 Susanville, Calif.. , September 19, 1960:
17 Kirksville AFS, Missouri. , September 20, 1960:
17 SE of Farmington, NM., September 20, 1960:
17 Midway Isles. , September 25, 1960:
17 Kirksville, Missouri., September 28, 1960:
17 19.48 N. 73.40 W. Atlantic. , January 10, 1961:
17 Wichita Falls, Kansas., January 10. 1961:
17 36.35 N. 67.45 W. Atlantic. , February 16, 1961:
17 Misawa AB, Japan., February 23, 1961:
17 Tyndall AFB, Fla.. , February 26, 1961:
17 Yuma, AZ. , February 27, 1961:
17 Bark River, Mich.. , February 27, 1961:
17 Herndon, VA. , February 27, 1961:
17 Waverly AFB, Iowa. , February 28, 1961:
17 Ephrata, Wash. , March 3, 1961:
17 RAF Station, Upper Heyford, Eng. , March 10, 1961:
17 Guard Island, AK. , March 13, 1961:
17 Ft. Pierce, Fla., March 23-29, 1961:
17 Cape Canaveral, Fla. , April 11, 1961:
17 Far East. , April 14, 1961:
17 Hanna City AFS, IL. , April 20, 1961:
17 Indian Springs, NV. , May 11, 1961:
17 Maxwell AFB, Ala. , May 20, 1961:
17 Tyndall AFB, Fla. , May 22, 1961:
17 Maxwell AFB, Ala. , May 22, 1961:
17 Tampa, Fla. , June 2, 1961:
17 Pacific Ocean. , June 25, 1961:
17 Kemah, TX. , Spring !961:
17 Copemish, Mich. , July 7, 1961:
17 Golden, Colo. , July 10, 1961:
17 Houston, TX. , July 20, 1961:

17 Albuquerque, NM. , September 2, 1961:
17 Cape Canaveral, Fla. , September 7, 1961:
17 Pacific Coast. , September 27, 1961:
17 Las Vegas, Nev. , September 30, 1961:
17 Arlington Heights, Ill. , November 7, 1961:
17 Oldtown, Fla. , November 21, 1961:
17 Washington DC. , December 13, 1961:
17 Kirksville, Missouri., January 22, 1962:
17 Winnemucca AFB, Nevada. , February 12, 1962:
17 Ramstein, Germany., March 26, 1952:
17 Goose Bay Labrador. , April 2, 1962:
17 220.2 N. 160.4 W. Kunia, Hawaii., April 12, 1962:
17 Nellis AFB Nevada., April 18, 1962:
17 Marksville, Leesville, Colfax, LA., May 19, 1962:
17 Albuquerque, NM. , May 24, 1962:
17 Hallett Station, Antarctica., June 7, 1962:
17 Indianapolis, Indiana., June 21, 1962:
17 Bermuda. , August 18, 1962:
17 Farmington, Utah., October 23, 1962:
17 Louisiana, Arkansas, Texas., March 6, 1963:
17 Meridian, Idaho., October 23, 1963:
17 APO 253, France., December 6-7, 1963:
17 Fallon AFS: Nevada. , April 17, 1964:
17 Las Vegas, Nevada. , April 26, 1964:
17 La Madera, NM. , April 26, 1964:
17 Minot AFB, N. Dakota. , April 28, 1964:
17 Millinocket, Maine. , May 24, 1964:
17 Cambridge, Mass. , May 26, 1964:
17 Cape Guardian, MO. Jackson, Miss., Belleville., July 10, 1964:
17 S. Houghton Lake, Mich. , July 16, 1964:
17 Langley AFB, Virginia. , July 24, 1954:
17 18.10 N. 66.12 W. Atlantic., November 16-24, 1964:
17 34.55 N. 164.05 E. Pacific Ocean., Ocean November 19, 1964:
17 Baker, Oregon. , December 4, 1964:
17 Harrisonburg, VA., December 21, 1964:
17 Patuxent River, MD. , December 29, 1964:
17 Williamsburg, VA. , January 23, 1965:
17 Alaska. , January 24-28, 1965:
17 Keesler AFB, Mississippi. , April 4, 1965:
17 Misawa AFB, Japan., April 10-14, 1965:
17 Turkey. , June 8 - 9, 1965:
17 Frankfurt, Germany. , June 29, 1965:
17 Antarctic & Arlington, TX., July 3, 1965, July 6, 1965:
17 Penn. and Ohio. , July 13, 1965:

17 Forbes AFB, Kansas., July 22, 1965:
17 Oklahoma. , July 31-August 3, 1965:
17 Ent AFB, Colo. , August 1, 1965:
17 Cocoa, Fla. , August 3, 1965:
17 Chicago, IL. , August 5, 1965:
17 Whiteman AFB, MO., August 1-2, 1965:
17 Plattsburg, NY. , August 20, 1965:
17 Glasgow AFB, Mont., August 28, 1965:
17 Urbana, OH. , August 30, 1965:
17 Nevada. , August 31, 1965:
17 Clover, Minn. , September 22, 1965:
17 Rodeo, NM. , September 25, 1965:
17 Licking County, OH., September 26, 1965:
17 Swanlake, NY. , September 27, 1965:
17 Anderson AFB, Guam. , October 1965 - June 27, 1966:
17 Edwards AFB, CA. , October 7, 1965:
17 Sawyer AFB, Mich., October 14, 1965:
17 Truax Field, WI. , March 25, 1966:
17 Charleston WV. , May 4, 1966:
17 Goodfellow AFB, TX. , May 7, 1966:
17 Danang, Vietnam. , August 23, 1966:
17 Carpio, ND. , August 24, 1966:
17 Finland AFS, Minn. , September 5, 1966:
17 Suffolk County AFB, NY. , September 6, 1966:
17 Franklin Springs, NY., September 9, 1966:
17 Wilmington, OH., September 28, 1966:
17 Cold Bay, Alaska. , October 26, 1966:
17 Saginaw, Minn. , November 8, 1966:
17 Monroe, Ore., December 25, 1966:

box

18 Charleston, SC. , January 16, 1967:
18 Odessa, Delaware. , February 9, 1967:
18 Grand Rapids, Mich. , February 12, 1967:
18 Striughton, Wisc. , February 16, 1967:
18 Oxford, Wisc. , February 20, 1967:
18 Glasgow AFB, Montana. , February 23, 1967:
18 Benton Harbor, Mich., March 6, 1967:
18 Onawa, Iowa. , March 9, 1967:
18 Wapello, Iowa. , March 22, 1967:
18 Belt, Mont. , March 24, 1967:
18 New Winchester, OH., March 26, 1967:
18 Houma, LA. , April 10-11, 1967:
18 Lizelia, Mississippi., July 10, 1967:
18 Kernville, CA. , July 30-31, 1967:

- 18 Kincheloe AFB, Mich., September 11, 1967:
- 18 Lake Charles, LA. , October 18, 1967:
- 18 Redlands, CA. , February 4, 1968:
- 18 Groveton, MO. , February 9, 1968:
- 18 Amarillo, TX. , March 6, 1968:
- 18 Nielson AFB, Alaska. , July 11, 1968:

Series III: Research Files, 1904-1969

box

- 18 #1: Civilian Saucer Intelligence of New York (CSI) Newsletter. , 4/54-9/56
- 18 #2: CSI Newsletter. , 12/56-11/57
- 18 #3: CSI Newsletter. , 12/57-7/59
- 18 #4: Declassified Project Grudge and Project Blue Book reports.
- 18 #5: Lists of Combined and Omitted Paged from Blue Book Status .Reports #8-12, and full copies of these reports.
- 18 #6: "Miscellaneous Notes - Miscellaneous." Preliminary outline of book JEM planned to write rebutting the Condon Report. Material includes "File Index" of subjects; after alphabetized tabs are case notes and references on many of these subjects.
- 18 #1: Lists of Projects Sign, Grudge, Blue Book sightings, , radar events. , 1948-1953
- 18 #2: Lists of Project Blue book sightings. , 1954-1958
- 18 #3: Lists of Project Blue Book sightings - , 1966-1969
- 18 #4: Lists of Air Force-investigated sightings Plus over 200 typed case summaries. , 24 June 1947 - July 4, 1949
- 18 #5: Project Grudge Analysis by Leon Davidson: on Ball lightning; miscellaneous information.
- 18 #1: USAF Information, including AF Regulation No. 80-17, GEOREF; Maps; PDO account numbers; AF Bases & Stations, etc.
- 18 #2: Blue Book cases not reproduced in NICAP edition, but collected by JEM; Project Sign notes; list of significant Grudge cases; Miscellaneous correspondence, etc.
- 18 #3: Case summaries; typed text of articles; typed text of letters sent elsewhere.
- 18 #4: Typed case summaries; re-typed articles.
- 18 #5: "Case Notes." Handwritten and typed notes on various sightings, alphabetized. "Cruttwell Report," ; Papua, New Guinea: Father Gill sighting. , March 1960
- 18 #1: Miscellaneous articles, newsletters, correspondence.

box

- 19 #2: Correspondence from UFO propulsion theorists; visionaries, prophets, pseudoscientists; astrologers.
- 19 #3: Miscellaneous UFO softcover books: UFO Evidence: UFOs A New Look: Symposium on Unidentified Flying Objects, etc. , July 29th, 1968
- 19 #4: NICAP Mass. Investigating Subcommittee (Chairman, Ray Fowler).
- 19 #5: NICAP Mass. Investigating Subcommittee (Chairman, Ray Fowler).
- 19 #6: Unanswered letters: Pseudo-science; kooks, etc.
- 19 #7: Condon Report controversy; Colorado U. clips; reprints of JEM talks: Correspondence with U. Thant & AIAA; George Kocher correspondence, sighting reports; Dave H. Rowe correspondence; Dexter-Hillsdale notes, clippings.
- 19 #8: ITT Research Institute; David Lowe photographs; copies of newsclips; Vandenberg AFB telephone directory, Nov. 1968; microwaves on birds; miscellaneous notes for talks;

perpetual calendar; astronomical ephemeris.

19 Computer printout of requested Blue Book Reports. , 1904-1967

Series IV: Publications Relating to Project Grudge, Blue Book, Condon, and others. , 1951-1969

box

20 Project Grudge and Blue Book Reports 1-12. , 1951-1953

20 Final Report on the Scientific Study of Unidentified Flying Objects, Dr. E. U. Condon, Director, Volumes 1-3, all annotated by JEM.

20 The UFO Evidence, edited by Richard H. Hall, (annotated by JEM). , 1964

20 Report on the UFO Wave of 1947, Ted Bloecher. , 1967

20 Flying Saucers Analysis of Blue Book Special Report #14, by Leon Davidson.

20 Science and the UFOs, National Amateur Astronomers. , 1969

20 UFOS: a new look, edited by Keyhoe and Lore. , 1969

20 UFOS and related subjects: an annotated bibliography, by Lynn Catoe, Library of Congress.

Series V: Photographic Materials.

Box 30A is restricted.

box

21 Photos, Films, Slides.

box

22 Slides for talks, UFOs, Mistaken Objects.

22 12 UFO carton slides.

22 15 FEM UFO slides.

22 17 Contrails of wing of A/C (sun dog?).

22 18 JEM slides (NICAP) and Grindstone cloud.

22 19 JEM assistant slides including NASA photos AF photo.

22 20 Cholderhose photos. White sands craft. Early rocket flights.

22 21 Unidentified film roll.

22 22 Negatives of craters.

Series VI: Audio-tapes: Interviews of UFO Sightings Witnesses by JEM. , 1954-1967

Materials in Box 30A are restricted. Access copies are available in box 30B.

box

23 Tapes 1-18.

box

24 Tapes 19-36.

box

25 Tapes 37-53.

box

26 Tapes 54-60, A-I.

box

27 Tapes K-V.

box

- 28 Tapes 1-9, A-H.
box
- 29 Tapes 1-13.
box
- 30 Tapes 14-20.
box
- 30A Audio Recordings by: Dr. James McDonald, Edited Masters from Original Recordings, 19 CDs, **RESTRICTED**
Binder that contains digitized preservation copies of materials held in boxes 23-30.
Binder contains a document detailing the digitization process of the materials and an index of materials held on the discs. Access copies are available in box 30B.
- box
- 30B >Audio Recordings by: Dr. James McDonald, 110 CDs (CDDA files)
Binder that contains access copies of materials held in boxes 23-30.

Series VII: Supplemental Materials. , 1960-1971

- box
- 31 LP Record (33 1/3) record: CBC Radio-Canada, Documentary series on UFOs.
- 31 Sony Tape Recorder/Case (for use on reel-to-reel tapes).
- 31 Two (2) samples of scorched earth from reported UFO landing site, South Hill, Virginia, Also one control sample., 4/21/67.
- 31 White Looseleaf Notebook: Lists of tapes, transcriptions; contents of hard cover notebooks, large books, brown file boxes; inventory of photos.
- box
- 32 Miscellaneous files. , 1960-1962
Box 32 contents: files related to Titan Missiles, including The Committee Against Ringing Tucson with Titans. Includes correspondence, minutes, articles, and printed materials relating to McDonald's activities to protest the placement of intercontinental ballistic missile base in the Tucson area.
- box
- 33 Miscellaneous files. , 1970-1971
Box 33 contents: files relating to the debate on the environmental effects of supersonic transports, includes his statement before the House Subcommittee on Transportation Appropriations concerning the transport program.

Subgroup 2: General Research Files, 1953-1997

Series I: Research Files, 1953-1997

- box
- 34 Absorption Data - water and ice.
- 34 Absorption of solar radiation by water vapor.
- 34 Acoustics.
- 34 Aerodynamics.
- 34 Air pollution.
- 34 Air pollution - pre 1950 clippings.
- 34 Air pollution - Arizona (2 folders).

34 Air pollution - Arizona - Tucson Daily Citizen.
34 Air pollution - Pima County. , 1969
34 Air pollution - Phoenix and non-Tucson Arizona.
34 Air pollution - Tucson.
34 Air pollution - mining .
34 Air pollution - sulfur dioxide.
34 Air pollution - Los Angeles and other California .
34 Aircraft performance and effects on atmos..
34 Aircraft - airport sequenced approach lights.
34 Aircraft - cabin depressurization effect.
34 Aircraft - Jettisoning of fuel.
34 Aircraft - shock waves on wings.
34 Airglow - astronomy.
34 Arctic.
34 Arid land - colloquium climatology.
34 Arid land - Rockefeller .
34 Arid zone climatology .
34 Astronomy.
34 Selected astronomical data.
34 Aurora. , September 22-23 1957
34 Balloon, near flight records.
34 Balloon dynamics.
34 Balloon inflation back-pressures.
box
35 Banner clouds.
35 Biology, cellular.
35 Bomb phenomena.
35 Bomb phenomena - other than fallout.
35 Brown Mountain Lights.
35 Brownian movement - history.
35 Calendar.
35 Carbon 14 and Carbon Dioxide.
35 Carbon monoxide.
35 Chemistry and composition of the atmosphere.
35 CAT - Clear Air Turbulence.
35 Climatology - general.
35 Climatology - pre 1950 clippings.
35 Climatology - Pleistocene Age.
35 Climatology - Pleistocene.
35 Climatology - Paleoclimatology.
35 Climatology - Paleoclimatology pre 1950 clippings.
35 Climatology - Homogeneity of Records.
35 Climatology - Arizona cloud cover study. , 1957-1958
35 Climatology - Arizona Arizona seasonal precip. Data.

- 35 Climatology - Arizona diurnal variation of precip.
- 35 Climatology - Arizona precip. double mass study.
- 35 Climatology - Arizona precip. correlation studies.
- 35 Climatology - Arizona precip. length of record study.
- 35 Climatology - Arizona precip. 10 year moving averages.
- 35 Climatology - Arizona winter precip.
- 35 Climatology - Arizona precip frequency distribution of amounts.
- 35 Climatology - Arizona precip tetrachoric correlation test.
- 35 Climatology - Arizona diurnal variation of mixing ratio.
- 35 Climatology - Arizona mountain precip. storage.
- 35 Climatology - Arizona precipitable water.
- 35 Climatology - Arizona winter wind directions.
- 35 Climatology - data Mexico.
- 35 Climatology - data precipitation deck notes.
- 35 Climatology - data analysis effects of inhomogeneity .
- 35 Climatology - desert precipitation rates.
- 35 Climatology - Southwest secular precip. trends.
- 35 Climatology - Southwest secular precip. trends.
- 35 Climatology - Western U.S. precip - 10 year moving ave.
- box
- 36 Climatology - U.S. mean mixing ratios
- 36 Climatology - U.S. rel. humidity - time x-sections.
- 36 Climatology - U.S. monthly mean relative humidity.
- 36 Climatology - U.S. mean precipitable water distrib.
- 36 Climatology - U.S. temp. precip. relations, wettest vs. driest.
- 36 Climatology - U.S. precip. seasonal and annual variability.
- 36 Climatology - U.S. precipitation efficiency.
- 36 Climatology - U.S. - mixing ratio - cross-section of Southern U.S.
- 36 Climatology - U.S. precipitable water.
- 36 Climatology - U.S. upper level anticyclone.
- 36 Climatic models.
- 36 Climate modification.
- 36 Climate modification inadvertent (2 folders).
- 36 Climate modification inadvertent, La Porte Anom.
- 36 Cloud condensation level local observ.
- 36 Cloud modification rainmaking pre 1950s clippings.
- 36 Cloud photogrammetry K-17, misc. notes.
- 36 Cloud photogrammetry K-17 IBM data.
- 36 Cloud photogrammetry K-17 calibration.
- 36 Cloud physics, general.
- 36 Cloud photographs, pre 1950's clippings.
- 36 Cloud photographs.
- 36 Cloud physics 1961 Australian Conference. , 1961
- 36 Cloud seeding - misc.

- 36 Cloud seeding reports - misc.
- 36 Cloud seeding Arizona.
- 36 Cloud seeding Arizona - Flagstaff.
- 36 Cloud seeding Australian experiments.
- 36 Cloud seeding benefit/cost ratio.
- 36 Cloud seeding - California Kern County.
- 36 Cloud seeding Quakers - Bosco.
- 36 Cloud seeding Jeffery.
- 36 Cloud seeding Quakery - Krick.
- box
- 37 Cloud seeding carbon black (2 folders).
- 37 Cloud seeding dry ice.
- 37 Cloud seeding and ecology.
- 37 Cloud seeding evolution and statistics.
- 37 Cloud seeding - fringe cases and quakery.
- 37 Cloud seeding.
- 37 Cloud seeding - Elliott North American Weather Cons.
- 37 Cloud seeding frontal storms.
- 37 Cloud seeding India.
- 37 Cloud seeding legal problems.
- 37 Cloud seeding legislation.
- 37 Cloud seeding in Mexico.
- 37 Cloud seeding Oregon.
- 37 Cloud seeding Owyhee Project.
- 37 Cloud seeding people problems.
- 37 Cloud seeding silver iodide.
- 37 Cloud seeding AgI cost analysis.
- 37 Cloud seeding by water drops.
- 37 Cloud seeding summer 1957.
- 37 Coalescence.
- 37 Coalescence - droplet growth in clouds.
- 37 Coalescence vs. freezing.
- 37 Coalescence project with Wisconsin. , 1953-54
- 37 Collection Theory.
- 37 Collection Theory Brownian Movement.
- 37 Collision Theory.
- 37 Collision Theory Foote.
- 37 Drop growth by condensation and collection.
- 37 Collision Theory growth of snowflakes by Wake Capture.
- 37 Combustion and flames.
- 37 Combustion process.
- 37 Comets.
- box
- 38 Composition and evolution of earth's atmosphere - Berkner and Marshall.

38 Computers.
38 Computers pre 1950 clippings.
38 Condensation level, study of lifting.
38 Condensation nucleation Twomey.
38 Condensation nucleation.
38 Condensation nucleation homogeneous.
38 Condensation nuclei condensation on Ions.
38 Condensation nucleation on insoluble particles.
38 Condensation nuclei observation and measurement.
38 Condensation due to dynamic effects.
38 Condensation criterion .
38 Condensation criterion.
38 Convection.
38 Convection - numerical modeling.
38 Convection modeling.
38 Values of constants.
38 Contrails.
38 Conolis effect.
38 Coronas and St. Elmos fire.
38 Cosmic rays.
38 Cosmic rays Chapman Effect.
38 Crystallography metals.
38 Cube roots, calculation of.
38 Cumulus clouds.
38 Cumulus clouds squires reprints.
38 Cumulus clouds caused by fires.
38 Deliquescence and hydrates.
38 Deposition paper.
38 Desalination.
38 Desert.
38 Dew.
38 Diffusion.
38 Diffusion Caesar's Breath.
38 Diffusion, atmospheric long range transport.
38 Diffusion coefficient - compensated.
38 Diffusional growth of drops - steady-state approximation.
38 Diffusional growth of drops in an updraft.
38 Diffusional growth of drops - Langmuir.
38 Diffusional growth of particles.
38 Diffusional growth of ice droplets.
38 Diffusional growth of ice crystals.
38 Distribution functions.
38 Drag - parachutes - dynamics.
38 Drop breakup.

38 Drop physics.
38 Drop production by artificial means
38 Drop shape.
box
39 Drop size distributions covering fraction theory.
39 Drop size measurements spattering.
39 Drop size distribution measurement of.
39 Droplets, very small diam <2m..
39 Droughts.
39 Dust devils.
39 Dust and dust nuclei.
39 Dust - stratospheric.
39 Dynamics of cumulus clouds bubble spectra K17.
39 Dynamics of cumulus clouds.
39 Dynamics - drag flow past a cylinder.
39 Dynamics - drag flow past spheres.
39 Earthquakes and earth interior.
39 Ecology (2 folders).
39 Ecology, food and population problems.
39 Ecology - pesticides.
39 Electricity of the atmosphere.
39 Electrostatics of drops and clouds.
39 Electrostatics of clouds and drops - Latham.
39 Empiricism.
39 Energetics.
39 Energy - vertical distribution of internal and potential.
39 Evaporation - lakes, etc.
39 Evaporation kinetic model.
39 Evaporation of raindrops - Cholley paper.
39 Evaporation - precipitation fallacy.
39 Evaporation - precipitation ratio.
39 Evolution.
39 Explosion physics.
39 Fall velocity of drops and snow crystals.
39 Fall velocity of spheres.
39 Fall velocity of small particles.
39 Fall velocity of small particles - Facy Effect.
39 Fallout Met.
39 Filters, Millipore.
39 Fire.
box
40 Fog.
40 Fog dispersal pre 1950 clippings.
40 Fog - ice fog.

40 Fog, numerical modeling of fog.
40 Fog, steam.
40 Fog - drip; collection of fog droplets by plants.
40 Forecasting weather pre 1950's clippings.
40 Free fall parachutes.
40 Freezing nucleation (2 folders).
40 Freezing nucleation homogeneous - thermodynam.
40 Freezing nucleation Fletcher.
40 Freezing nucleation in the atmosphere.
40 Freezing nucleation supercooling.
40 Freezing nucleation due to expansion - pop bottle exp.
40 Freezing nucleation by silver iodide.
40 Freezing nuclei Arizona observations.
40 Freezing nuclei NCAR counter.
40 Freezing nuclei Bowen's Hypothesis.
40 Freezing nuclei from smelter stacks.
40 Freezing nuclei counts. , 1958
40 Freezing nuclei, natural observations and measurements.
40 Freezing nuclei measurements.
40 Friction.
40 Game Theory, etc.
40 Geochronology.
40 Geomagnetism.
40 Green flash.
40 Hail.
40 Hail damage.
40 Heat budget of atmosphere latent heat transport.
40 Helium.
40 History of cloud physics.
box
41 History of cloud physics Bergeron Hypothesis.
41 History of cloud physics - James Espy.
41 History of cloud modification.
41 History of diffusional growth of cloud droplets.
41 History of rainmaking (2 folders).
41 Hornet light.
41 Humidity measurement psychrometry.
41 Hurricanes misc.
41 Hurricanes pre 1950 clippings.
41 Hurricanes influence on Arizona.
41 Hurricane in Arizona. , 1970
41 Hydrology.
41 Hydrostats of other atmospheres.
41 Ice and snow crystals.

41 Ice crystals in clouds.
41 Ice crystals, capacitance.
41 Ice - fall.
41 Ice crystal growth in water.
41 Ice crystals iridescence.
41 Ice physical properties.
41 Ice structure.
41 Indirect sensing inversion methods.
41 Infrared radiation remote sensing.
41 Infrared radiation - misc.
41 Infrared absorption.
41 Infrared absorption by H₂O - Kew Chart.
41 Infrared absorption by water vapor - Kew Chart flux data.
41 Infrared radiation - diurnal variability of down coming flux.
41 Infrared exchanges in clouds.
41 Infrared emissivity of water.
box
42 Infrared radiative flux calculations.
42 Infrared reflectivity of H₂O.
42 Instruments and observing techniques pre 1950 clippings.
42 Infrasonics.
42 Cloud physics instrumentation. , 1959
42 Inversions.
42 Irrigation by sprinklers.
42 Irrigation pre 1950 clippings.
42 Jet stream cross section study.
42 Jet stream hydrostatics.
42 Jupiter.
42 Kelvin Effect paper.
42 Kite sounding.
42 Laplacians.
42 Lasers.
42 Laser backscattering x-sections.
42 Latent heat of water.
42 Light sources photometry.
42 Liquid state.
42 Liquid water content of clouds - measurement.
42 Liquid water content, instrument for measurement of.
42 McDonald progress reports. , 1953-1954
42 McDonald progress reports. , 1956-1957
42 McDonald progress report. , 1958-1960
42 MACE.
42 Magnetism.
42 Math.

42 Mars.
42 GH Parm.
42 Measurement instruments.
42 Measurements - aircraft temp. and humidity.
42 Melting of drops.
42 Meteorology and the animal world.
42 Meteorology and the animal world - flight of birds.
42 Meteorology and botany.
42 Meteorology and insects.
42 Meteors (2 folders).

box

43 Meteors, observations of.
43 Meteors entry of-into atmos.
43 Meteors and rain.
43 Meteorites - early history rep.
43 Micrometeorology of caves.
43 Micrometeorology desert surface.
43 Micrometeorology desert surface temp.
43 Microwave ovens.
43 Mining.
43 Mining - air pollution.
43 Mining - statistics on production.
43 Mirage.
43 Moon, transient lunar phenomena.
43 Moon meteorology.
43 Motion of the atmos. fine scale.
43 Nacreous clouds.
43 Neutrino.
43 Nitrogen oxides.
43 Noctilucent clouds.
43 Noise - attenuation of aircraft noise.
43 Noise and acoustics.
43 Nomenclature.
43 Nonlinear interactions.
43 Nucleation, general references.
43 Nucleation, non-water and sublimation.
43 Numerical methods of integration.
43 Numerical modeling general circulation.
43 Numerical modeling and simulation.
43 Oceanography.
43 Oceanography pre 1950 clippings.
43 Optics.
43 Optics of the atmos.
43 Optical properties of aerosols 1965 NYU Conf.

43 Origin of elements and solar system.
43 Origins of solar system Velikovsky.
box
44 Orographic precipitation.
44 Oscillations of the atmosphere.
44 Oscillations of drops.
44 Ozone.
44 Ozone and rubber.
44 Photogrammetry of clouds.
44 Photogrammetry of clouds K-17. , Summer 1955
44 Photogrammetry of clouds K-17. , Summer 1956
44 Photographs of mountains near Tucson.
44 Photography raindrop reflection images.
44 Photosynthesis.
44 Physics and sports - Human reaction times.
44 Planetary Met.
44 Planetary atmospheres.
44 Plasma physics magneto hydrodynamics.
44 Plow share.
44 Polarized light.
44 Pollen wettability washout.
44 Precipitation radar measurement of.
44 Pseudo adiabatic cooling rate, numerical evaluation of.
44 Radar.
44 Radar - Airborne.
44 Radar - Aircraft control.
44 Radar - backscattering coefficient - large sphere limit.
44 Radar - backscattering x-section of hydromet.
44 Radar - backscattering x-section of balloons.
44 Radar - data on specific sets.
44 Radar equipment.
44 Radars - surveillance and GCA.
44 Radar - target and back-scatter characteristics.
44 Radar - trackers.
44 Radar - weather radars.
44 Radar meteorology central.
44 Radar meteorology clear air angel echoes.
44 Radar meteorology refraction.
44 Radioactivity and the atmosphere.
44 Radiosonde characteristics.
box
45 Rainbow.
45 Raob radiation-error study.
45 Rainfall statistics.

45 Raingauge net Summer. , 1955
45 Rainshadow effect.
45 Raoult effect.
45 Relativity.
45 Research at IAP. , 1957
45 Rockets and propellants.
45 Scattering of sunlight.
45 Scattering - Rayleigh.
45 Science, general and history.
45 Science and accidents.
45 Science - boondoggling.
45 Science and economics.
45 Scientific negativism.
45 Scientific optimism.
45 Science and polotics.
45 Science, Quacks.
45 Science and polotics U of A Govt. Dept. Program.
45 Science and social responsibility.
45 Science and technological development.
45 Sewage treatment plant odors.
45 Silver iodide.
45 Silver iodide generators.
45 Silver iodide, photolysis.
45 Skin and sunlight sunburn.
45 Skin cancer (2 folders).
45 Smoking - air pollution.

box

46 Snow pre 1950 clippings
46 Snow machines.
46 Solar Energy Project IAP.
46 Solar energy conservation pre 1950 clippings.
46 Solar radiation data.
46 Solar radiation in the atmosphere.
46 Solubility of air in liquid water.
46 Sonic booms.
46 Sonic boom, citizens league against.
46 Space program.
46 Sprays - droplets in water atomization.
46 Statistics, general.
46 Statistics and cloud seeding.
46 Statistics and tail of curve phenomena.
46 Scattering, microwave by cloud drops.
46 Statistics inadvertent bias.
46 Statistics, randomization.

46 Statistics - variability examples.
46 Stratospheric water vapor.
46 Stratosphere dynamics.
46 Subsun.
46 SST radiation hazards.
46 Surface physics.
46 Terpenes.
46 Thermal structure (or ATM).
46 Thermodynamics.
46 Thermodynamics - adiabatic processes.
46 Thermodynamics of clouds isothermal- adiabatic expansion.
46 Thermodynamics of clouds Dufour and Defay reprints.
46 Thermodynamics lapse rate problem.
46 Thermodynamics diagrams H₂O and CO₂ phase models.
46 Thesis problems - suggestions.
46 Transistors.
46 Transport of water vapor.
46 Transport, mesoscale.
46 Tropopause.
46 Tropopause data (not in folder).
46 Tropopause heights study - Arizona.
box
47 Turbidity factor and diffuse rod.
47 Turbulence.
47 Turbulence in severe storms.
47 Turbulence in clouds.
47 Turb. diffusion.
47 Turbulent fluctuations temperature.
47 Twilight phenomena.
47 Twilight bands.
47 Twilight cloud. , June 13, 1966
47 Twilight cloud. , May 18, 1966
47 Twilight clouds ring Flagstaff.
47 Twilight cloud. , May 23, 1966
47 Twilight clouds - misc.
47 Ultraviolet light sources of artificial.
47 Upperatmosphere pre 1950 clippings.
47 Upper atmosphere.
47 Upper atmosphere recombination-attachment.
47 USSR cloud physics research.
47 USSR visit.
47 Vapor pressure saturation over supercooled water.
47 Vapor pressure, saturation and intermolecular attraction.
47 Variability of runoff in mountain watersheds.

47 Venos.
47 Visibility.
47 Visibility and clouds.
47 Visibility - airlight simulation experiment.
47 Visibility of stars during daylight.
47 Visibility reduction due to jet-exhaust carbon particles.
47 Volcanic dust etc.
47 Vortex rings.
47 War - chemical and biological.
47 War and weather by Edward Powers.
47 Washout.
47 Water resources research centers.
47 Waves in the atmosphere.
47 Waves in the atmosphere gravity.
47 Wave clouds.
47 Weather and climate modification - U of Wash Talk.
47 Wea. Mod. Assn.
47 Wilderness society.
47 Wind observations. , Summer 1955
47 Wind and wind damage pre 1950 clippings.
47 Wind velocity measurement.
47 Wind tunnels.
47 Smarting-Moonen prints - good.

box

48 Wind tunnel, vertical notes.
48 Wind tunnels, vertical design and drawings.
48 Yuma gun.
48 Ray Stanford - Phx.
48 Geo Helm - happy Jack.
48 John Hudson - Tucson.
48 Jack Knowles - Flagstaff.
48 Jerold Levy.
48 Dave McGowen - St. George, Utah.
48 Hugh McSpadden - Mesa.
48 Ronald Thomas.
48 Bill Warren - Prescott.
48 Whitaker - Tucson.
48 Williams - Flagstaff.
48 May 23 items.
48 Other ring cloud reports.
48 Crackpot .
48 Hypotheses, rocket obs. Etc. and UFO obs.
48 Photog list.
48 M.O.P. Correspondence.

48 C.B. Moore Photo. , Dec. 6 1965
48 Religion and cloud.
48 28th Feb. cloud - special letters, reports, etc, crackpots, odd ones, etc.
48 Official correspondence - MOP.
48 Maps in manila envelope (not in folder).
48 Reactions - misc.
48 Atomic insurance and the AEC.
48 Bodega report.
48 Natural gas and electric power.
48 Radiation damage manuscript.
48 Reactor hazards.
48 Dresden.
48 Weapons systems.
48 Talks, notes, pix, etc.
48 "Nuclear Information" St. Louis.
48 Local fallout.
48 Correspondence Goldwater.
48 U.S. Naval Radiological Def. Lab.
48 M/R Missile data.
48 ICBM sites - press data.
48 Tucson - missile facilities letters to E.D.
48 Udall, S.L.
48 ICBM sites.
48 Civil defense and damage and evacuations and survival.
48 N2 O4 accident.
48 Nuclear attacks on Tucson and Phoenix.
48 Nuclear disarmament.
48 Nuclear bombs effects on weather.
box
49 Nuclear fusion.
49 Nuclear fusion Lord Rutherford notes.
49 Nuclear - ICBM.
49 Nuclear missiles Tucson and Titans.
49 Adele Smith - Las Vegas.
49 Papers for publication.
49 Publ. Comm AMS.
49 Progressive.
49 Physics teacher.
49 Sci. Am. notes for papers.
49 Symold - STDS.
49 Sigma Xi.
49 TAGU.
49 Tellus.
49 TAGU paper - Correlation Method.

49 Sky and Telescope.
49 Scientific American.
49 Scientific American - 1960+.
49 Subscription.
49 Saturday Evening Post.
49 Science Study Series.
49 Science.
49 Science and Technology.
49 Science general notes.
49 Weather GJRMS.
49 Washington AMS. , 1961
49 Woods Hale AGV meeting notes.
49 Saturday Review.
49 Weather wise.
49 Water resources committee.
49 C of 11 (Committee of Eleven). , 1996/97
49 Committee of Eleven. , 1958
49 Committee of Eleven. , 1964-66
49 C of 11. , 1967-68
49 IAP General Information (Institute of Atmospheric Physics). , 1954-55
49 History of Science Colloq. (Colloquium).
49 Graduate study committee.
49 Library.
49 University matters - JEM (Empty folder).
49 Photographs.
49 Photography.
49 Wm A. Abell (Abell, William).
49 Adams, Geo. O. (Adams, George).
49 Julian Beck - Bremerton.
49 Jeff Cole - ASC (Arizona State College).
49 W. Breed - Flagstaff (Breed, William).
49 Cagle (Cagle, Ben).
49 F.H Carver - Page.
49 Jackson Clark - Tucson.
49 O.M. Clark - Scottsdale.
49 Wm Channon - Camp Verde.
49 Norman Cole - Tucson.
49 Barbara Conley.
49 K.J. Crowther - McNary.
49 Davis - Winslow.
49 I.E. Daniels - Springerville.
49 Roy N. Daniel - Snowflake.
49 Downum - Leupp.
49 Sgt. Arthur A. Francis - ABQ.

- 49 Ben Gibbons - Chinle.
- 49 Glauthur(?).
- 49 H.E. Graham - Flagstaff.
- 49 Mrs. Gerwitz - Holbrook.
- 49 J.C. Greenacre.
- 49 Grand Canyon - Gen..
- box
- 50 Bodega Bay.
- 50 Bodega Bay Technical and Legal.
- 50 Breeding.
- 50 Anti-pollution league.
- 50 USWB studies.
- 50 Frontier article.
- 50 General.
- 50 Windscale.
- 50 Large manila to Mrs. Pat Paylore from Vice President for Research. Not in folder.
- 50 Met. Papers - esp Calif. Coast.
- 50 Ravenswood - statement.
- 50 San Francisco hearing statements and other items.
- 50 Ravenswood.
- 50 Nipomo Dunes.
- 50 Malibu.
- 50 San Onofre.
- 50 San Onofre statement.
- 50 The Coriolis Effect.
- 50 Effects on nuclear attacks on Tucson and Phoenix.
- 50 The Earth's Electricity.
- 50 Apparent Sun Time for Normal Incidence Solar Radiation Observations (green folder).
- 50 Manual of Cloud Forms and Codes for States of the Sky (red folder).
- 50 Publications-list, McDonald
- 50 Portage Co. Ohio.
- 50 Institute of Atmospheric Physics: Pilot Reports on Haze Tops and Smoke Plumes (green folder).
- box
- 51 Rohwer, Mrs. K.S.
- 51 Clarence Peterson - Bremerton, Wash.
- 51 T.A. Pape - Alabama.
- 51 Schley - Flagstaff.
- 51 Jos. Schadl.
- 51 Effects of Inhomogeneity and Record Length on Estimates of Correlation and Variability of Precipitation Data.
- 51 McDonald, J.E., Effect of Momentum-Exchange on the Fall Velocity of an Accreting Hydrometeor. , 3/10/62
- 51 Evaluation of Weather Modification Field Tests.
- 51 McDonald, J.E., The Evaporation Precipitation Fallacy. , 1/10/62

- 51 A Gigantic Horizontal Cloudbow.
- 51 McDonald J.E., An historical note on an early cloud modification experiment.
- 51 Homogeneous Nucleation of Supercooled Water Drops.
- 51 J.E. McDonald, Homogenous nucleation of vapor condensation. , 8/7/62
- 51 Observations of Freezing Nuclei over the Southwestern U.S., A.R. Kassander, L.L. Sims, J.E. McD.
- 51 McDonald J.E., Intermolecular Attractions and Saturation Vapor Pressure. , 1962
- 51 It Rained Everywhere but Here : The Thunderstorm Encirclement Illusion.
- 51 J.E. McDonald, James Espy and the Beginnings of Cloud Thermodynamics. , 2/13/63
- 51 McDonald, J.E., Large-sphere Limit of Radar Back-scattering Coefficient. , 1962
- 51 Maxwellian Interpretation of the Laplacian.
- 51 McDonald, J.E., Mean Atmos. Residence Time for Particulate Air Pollution.
- 51 Measurement, Analysis, and Interpretation of Turbulent Temperature Fluctuations.
- 51 Meridional Allignment of Tropical Cirrus Clouds.
- 51 Nomenclature of Phase Transition.
- 51 McDonald, J.E., A note on the aerodynamic effects of internal circulations in small raindrops.
- 51 McDonald, J.E., A Notes on Anomalouse Adiabatic Cooling Rates in Clouds. , 1/25/62
- 51 A Note on the Precision of Estimation of Missing Precipitatin Data.
- 51 The Physics of Cloud Modification.
- 51 McDonald, James E., On a Point of Terminology in the Optics of the Rainbow. , 1/16/64
- 51 McDonald, J.E., Pollen Wettability as a Factor in Washout by Raindrops. , 9/23/63
- 51 McDonald, On Radar Detection on Non-Spherical Ice Particles.
- 51 Rain Washout of Partially Wettable Insoluable Particles.
- 51 McDonald, James E., Raindrop Spatter-Spots.
- 51 The Rate of Descent of Parachutes from Various Altitudes.
- 51 McDonald, J.E., On the Ratio of Evaporation to Precipitation. , 3/29/60
- 51 Remarks on Correlation Methods in Geophysics.
- 51 Remarks on the Development of the Coriolis Principle.
- 51 Review of Physics of the Earth's Upper Atmosphere, Hines, et al.
- 51 Review of Cosmic Rays, Rossi
- 51 Review of An Introduction to Fluid Mechanics and Heat Transfer, Kay
- 51 Review of An Introduction to Atmospheric Physics, Fleagle
- 51 McDonald, J.E., The Saturation Adjustment in Numerical Modelling of Fog. , July 19 1963
- 51 Saturation Vapor Pressures over Supercooled Water.
- 51 Scientific Basis of Weather Modification.
- 51 The Shape of Raindrops.
- 51 The Shape and Aerodynamics of Large Drops.
- 51 Should We Know All the Facts About Civil Defense?
- 51 McDonald, J.E., Some Models of Interest in Meteorological Thermodynamics.
- 51 J.E. McDonald, Stratospheric Cloud Over Northern Arizona. , 3/20/63
- 51 McDonald, J.E., Surface Chemistry of Ice Nucleation. , 6/27/61
- 51 McDonald, A Thermodynamic Relation in the Theory of Homogeneous Nucleation of Supercooled Droplets. , 12/18/63

51 Tucson and the Titans.
 51 McDonald, J.E., Use of the Electrostatic Analogy in Studies of Ice Crystal Growth.
 Zamp= Zeitschrift fur Angewandte Mathematik und Physik. , 4/29/63
 51 McDonald, J.E. 1962, Visibility Reduction Due to Jet-Exhaust Carbon Particles. ,
 1/20/62
 51 McDonald, J.E., Variability Factors in Mountain-Watershed Hydrometeorology in an Arid
 Region.
 51 J.E. McDonald, What is a Meteorological Engineer? 3/15/60
 51 AMS Publication Committee , 1966-69
 51 Dover Publications.
 51 Fleagle - Businger review.
 51 JGR Style Sheet.
 51 Notes on preparation of reports and journal manuscripts. Institute of Atmospheric
 Physics.
 51 Palynology Conf. , April 23-27, 1962
 51 R.E. Lapp.
 51 Point West.
 51 Q.J. Royal Met. Soc. (Meteorological Society).
 51 Publ. Comm. AMS, 2nd Series, Cressman.
 51 PTA Mansfeld.
 51 Refereeing.
 51 Reviewing.
 51 Reviews of Geophysics.
 51 Reporter.
 51 Russian X lotion project (?).
 51 Russian literature.
 51 Physics of Fluids.
 51 Pedagogy.
 51 Research notes.

box

52

Box 52 contents : pamphlets, handbooks, manuals

52 PSU Cld Dvn (brown binder).
 52 Weather Manual for Pilots.
 52 The Feasibility of a Global Observation and Analysis Experiment.
 52 Gedenkschrift R. Sanger.
 52 PA Houghton (lecture notes).
 52 Ground Layer Temperature Inversions in an Interior Valley and Canyon.
 52 Photochemistry of Polluted Atmospheres.
 52 Hydrocarbon Emissions from Automobiles.
 52 Seventh Technical Progress Report.
 52 Air Pollution Measurements of the National Air Sampling Network.
 52 State of California Motor Vehicle Pollution Control Board.
 52 Air Pollution...A National Problem.

52 National Goals in Air Pollution Research.
52 California Standards for Ambient Air and Motor Vehicle Exhaust.
52 The Heat Balance of the Earth's Surface.
52 Our Nation and the Sea.
52 Digest of Municipal Air Pollution Ordinances.
52 The Physical State of the Upper Atmosphere.
52 Report Submitted to the Trail Smelter Arbitral Tribunal.
52 Air Quality Criteria for Particulate Matter.
52 Air Quality Criteria for Sulfur Oxides.
52 Air Over Cities.
52 FAA, Instrument Flying Handbook
52 National Conference on Air Pollution - Proceedings.
52 Evaluation Conference, Project Skywater proceedings: Skywater Conference II.
52 Optimization Conference, Project Skywater proceedings: Skywater Conference IV.
52 Pilot Project Review, Project Skywater proceedings: Skywater Conference V.
52 Nucleation Conference, Project Skywater proceedings: Skywater Conference I.
52 Production Conference, Project Skywater proceedings: Skywater Conference III.

box

53

Box 53 contents: microfilm

53 Howell Thesis, Drop Growth.
53 Hangen Thesis MIT, Mil Absorption. , 1/21/59
53 Fritz's Thesis. , 1959
53 Hendrickson, Mass Transfer to Drops.
53 LaNer J Serdin, Mil Theory.
53 Banger WBM.
53 Mason and Ludia, Microphysics of Clouds.
53 Langmen J Blodged, Drop Tragedies.
53 Hocking, PhD Thesis University of London.
53 Blanchard McDonald.
53 Scrase.
53 Pannell and Taylor.
53 Nakaya.
53 Sierra Ancha.
53 Wimbush, M.H., Optical Astronomical Seeing: A Review. , 5/5/69
53 O.F. Barns, Cloud Observing.
53 U. Nakaya, Frost Heaving.
53 Phillips, Iowa.
53 U. Nakaya, Natural Snow.
53 Sherlock.
53 Yuma Test Station.
53 Unnamed (Kodak canister).